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Railroading on Michigan's Upper Peninsula

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Two of Pacific Electric's big red cars, Nos. 975 and 952, clatter along toward Santa Monica Terminal on Nov. 26, 1944. Photo by the late Stephen D. Maguire

RAILROADS ILLUSTRATED

Mail & Express

Our front cover this issue shows Southern Railway FP-7's Nos. 6147 and 6138 pulling 19 cars through the luxuriant woodlands south of Chattanooga, Tennessee, on the return portion of an excursion trip to Birmingham, Alabama, last April 4. The photographer was David Hurt of Columbus, Mississippi.

The back cover, photographed by William T. Morgan, shows an unusual Japanese shortline, the Towada Kanko Denki Railway, that hauls both passengers and freight over its ten-mile electrified route. Motor car 2405, built by Hitachi in 1951, and a control car behind it were approaching the outskirts of Misawashi, Japan, when the photo was taken in early August, 1978. The stately building in the background is the Komaki Grand Hotel.

Color and more pages Though we had hoped to increase the number of pages and introduce some color to the interior of this magazine, in the past six months we have had to absorb a staggering 36 percent hike in our postal bills and a stiff 15 percent rise in the cost of the high-quality, heavyweight paper we use. This means we will have to defer these improvements for the time being, but we do plan to effect these changes later on as our circulation increases, perhaps by the middle of next year. It *would* have been possible to add more pages but this could only have been done by substituting a lightweight, lower-grade type of paper, something your publisher resisted since it would have severely compromised the quality you have come to expect from this publication.

Around the Nation The names of two Southwestern railroads have passed into history, both of them merged into the giant Burlington Northern Railroad. Minority shareholders of the Colorado & Southern, already 92.57% owned by BN, agreed to accept $300 in cash for each share of common stock they own. Under the terms of the merger the separate existence of the C&S will cease, as will the Fort Worth & Denver, a wholly-owned subsidiary of the C&S.

Years ago, the FW&D was one of the most popular roads in the country among boomers and railroad men blacklisted for union activities who needed to fill in gaps in their service records. The men used the road as a reference knowing full well that all the company's records had been destroyed in a fire at Childress, Texas.

Known as one of America's more innovative railroads, Union Pacific recently put into service its first solar-heated building. The 60 by 112-foot structure in Omaha, Nebraska, houses the offices of the superintendent of shops and features collector panels and triple-glazed windows. UP says it will realize considerable energy savings compared to a conventionally-heated building. Its cost was $750,000.

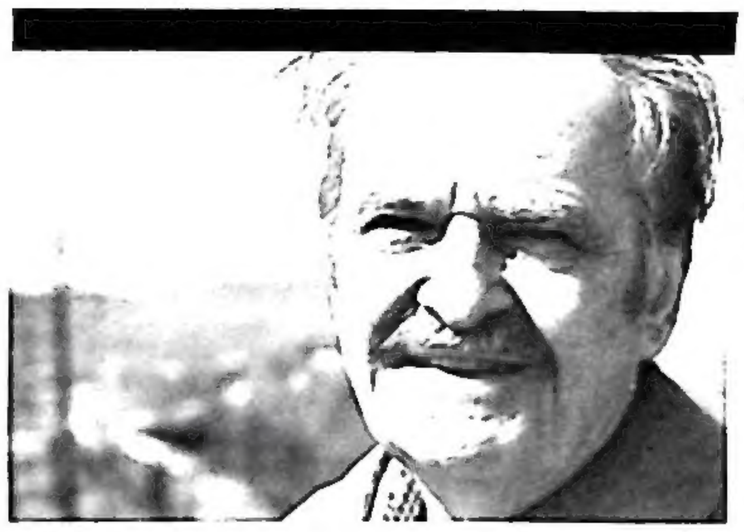
Early this year there was serious talk in Reagan Administration circles about selling off Conrail piece by piece to the highest bidder. Now, that day of doom for the Northeastern rail system seems less and less likely. For one thing, Congress passed the Northeast Rail Service Act last August which gave Conrail a two-year reprieve. If it is still unprofitable at the end of that period its assets could be sold to anyone willing to buy them. But if the railroad turns a profit, it might then become a privately-owned system with the Federal Government selling its 80 percent stake in the corporation.

More important, Conrail's cost-cutting efforts are finally paying off. The recently announced third-quarter profit of $64.9 million was the largest since the system was formed in 1976 and compares to a loss of $88.1 million in the same quarter a year ago. This performance is even more respectable when one considers that its traffic is down 5 percent from last year.

A major factor in cutting costs has been wage restraint on the part of most of the sixteen unions representing Conrail workers. Meanwhile, its labor force has been cut from last year's 78,993 to a present level of 69,959. For this year's first nine months Conrail eked out a $12.8 million profit compared to a $231.8 million loss in the same period in 1980.

A group of 21 individuals including the former president of the Morristown & Erie have been indicted in New Jersey on charges of stealing $1.3 million in railroad equipment from Amtrak and its predecessors over a six-year period. Property stolen included trucks, railsaws, parts for repairing switches, and track-laying equipment. The thefts occurred at railroad yards and depots in Jersey City, Hoboken, Newark, Elizabeth, Harrison, Kearney, and Linden, N.J. Several Amtrak and Conrail supervisors were among those indicted.

According to the *New York Times*, investigators discovered that shortly before the 12-mile, freight-only Morristown & Erie went bankrupt, it had purchased large quantities of rail equipment which it then sold to other lines. Police then discovered that the owner of a railroad salvage business, Peter Tarantile, had put together a network of Amtrak and Conrail employees and officials to steal railroad property and deliver it to himself for resale. Sometimes, according to Edwin H. Stier, the director of New Jersey's Division of



Roy Hubbard

Author of numerous rail books and long-time editor of *Railroad Magazine*, Freeman Hubbard died in New York City last August 13, of leukemia, at age 87.

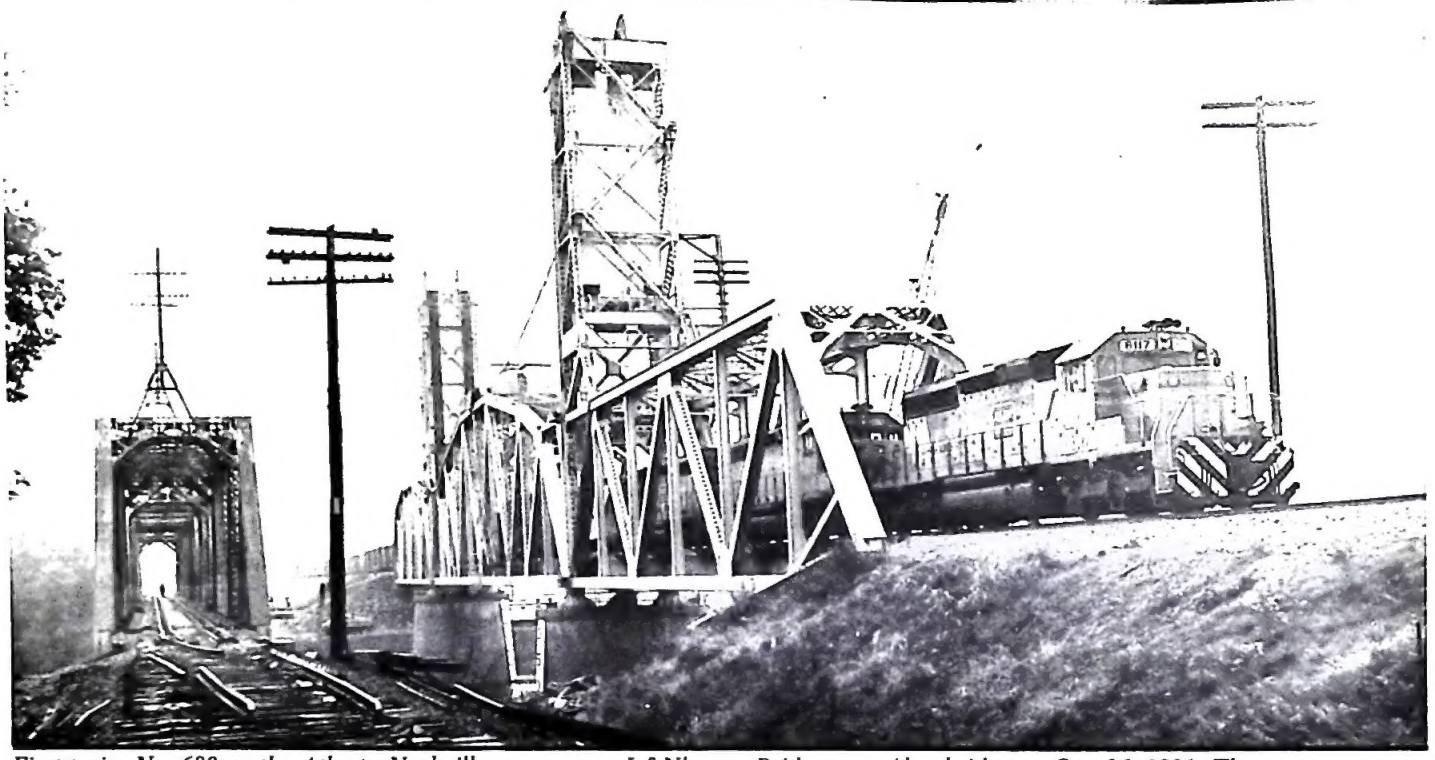
In his most popular book, the 1945 best-seller *Railroad Avenue*, Freeman introduced a generation of Americans to the human side of railroading: the boomers and lightning slingers, the bakeheads and hoggers, and the colorful lingo they used in their chosen profession. At *Railroad Magazine*, in the early 1930's, he performed a real service to the fledgling "railfan" movement in the U.S. (a word he coined), by starting the International Engine Picture Club, a regular department that enabled thousands of readers to trade photos and railroadiana.

As an editor he had a sure hand, transforming—with amazing speed—sometimes indifferent manuscripts into the informal, readable prose that became his hallmark. A score of talented rail fiction authors such as Harry Bedwell, E.S. Dellinger, John Johns and Gilbert Lathrop were in his debt for providing them with an outlet for their work.

Above all, Freeman was loyal to his readers. "I tried to weld my readership into one big family, making them more human toward each other," he wrote us shortly before his death. Typically, he volunteered his advice, suggestions, and honest criticism concerning *Railroads Illustrated* ("Contents page is clean-cut, impressive," "caption at bottom of page 7 is bad—a mere label"); he penned several "Mail & Express" items and wrote two articles for us, one under the pseudonym Carl Loomis, for Freeman loved to use pen names.

The era of the big conglomerate was not for him; he exulted in the individual railroad man and what he could achieve, as opposed to the "brass collar," the pompous railroad official who went strictly by the rules. His favorite quote, by the Great Northern Railway empire builder James Jerome Hill, summed up his life: "Most men who have really lived have had, in some shape, their great adventure. The railway is mine."

Freeman is survived by his wife of 35 years, Naomi Critchett Hubbard, a son, and two daughters.



First train, No. 680 on the Atlanta-Nashville run, crosses L&N's new Bridgeport, Ala., bridge on Oct. 26, 1981. The two tower spans and a lift span were taken from another bridge and barged 335 miles to present location. Old bridge is at left.

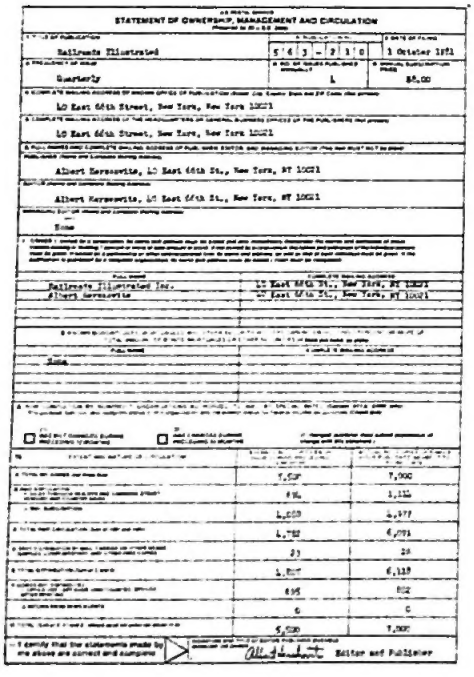
Criminal Justice, Mr. Tarantile would steal the property himself.

The indictment stated that some of the stolen material was purchased by the Adirondack Railway and the Raritan River Railroad, although these roads were not charged. Altogether, the grand jury brought 131 counts against the 21 defendants, including conspiracy, receipt of stolen property, embezzlement, theft, and bringing stolen property into the state.

We were saddened to hear of the death on November 8 of E. J. Quinby, inventor of sonar and founder, in 1934, of the Electric Railroaders' Association.

Born in New York City on January 13, 1894, "Jay," as his friends called him, became a motorman on the North Jersey Rapid Transit line early this century. Somewhat of a daredevil in those days, he was fired from that post when the interurban he was piloting beat a steam train running on the parallel Erie Railroad (one of the passengers who had been left standing at a flag stop reported him).

He later became a railroad telegrapher, a wireless operator on tramp steamers, and a designer of railroad cars for American Car & Foundry. Still later, he was associated with Marconi in radio research, and capped an illustrious career by becoming a Commander in the U.S. Navy. Quinby also authored several books and numerous magazine articles on the subject of his first love, electric railroading.



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I certify that the statements made by me above are correct and complete. — Editor and Publisher

New life for an old bridge We've all heard of steam and diesel locomotives being cannibalized for parts, but how often does that happen with a structure as large as a bridge? Rather than building two completely new ones on the Louisville & Nashville, the Family Lines Rail System decided to perform such an operation on an unused L&N bridge located in Danville, Tenn. A lift span and two tower spans were removed from the bridge, then floated 335 miles on barges up the Tennessee River to Bridgeport, Alabama, where they were set into place on new piers and abutments.

The same procedure was followed on the other bridge across the Clinch River near Knoxville. Here, two 200-foot through truss spans were floated to the new site and installed, replacing the two original spans.

Now that they are in place, L&N can move heavier tonnages over the bridges and 10 mph. slow orders have been removed. The 678-foot Bridgeport span which is on the Chicago-Nashville-Atlanta mainline replaces an old swing bridge dating back to the 1890's. The road claims it saved $5 million on the Bridgeport operation.

Construction of a vast $40 million complex at North Little Rock, Arkansas, designed exclusively for the repair and rebuilding of diesel locomotives, has been announced by Missouri Pacific. Work on the project is slated to begin in January with a completion date set for October 1983. The complex will be equivalent in size to four football fields and will replace a 77-year-old shop just south of the new site. The old shop employs 430 workers, all of whom will be shifted to the new complex when it is completed.

Following a meticulous study of a variety of alternatives, Sacramento, Calif., has opted for a 19-mile light rail transit system scheduled to begin operating in 1984 at a cost of $112.7 million. Part of the route is planned to run along a 100-foot-wide Southern Pacific right-of-way.

Because of budget reductions in federal funding for Amtrak pass privileges have

been cut ... employees hired by the passenger system after 1971, the date Amtrak was created. Those employees will now no longer receive reduced rates for accommodations and the 50 percent discount for fares has been decreased to 25 percent.

After seven years of supplying a marginally useful commuter rail map, the Metropolitan Transportation Authority has now come up with a brighter, more elaborate and in-scale guide to its train services in the Greater New York area.

With a copyright of 1981, the entirely new format shows the natural alignment of rail lines and their relationship to highways, bridges, ferries, rivers, and the shore line of Long Island Sound and the Atlantic Ocean. The old map, with its simple, stylized design, showed only railway lines and a rough outline of the coast.

In the upper right-hand corner, there are two welcome inserts. One sketches the subway to commuter line connections in Manhattan, the Bronx, Brooklyn and Queens, and the other lays out the former Erie-Lackawanna lines in New Jersey, with their links to PATH trains. Although there are some omissions, such as leaving out Amtrak's important connecting link from Penn Station via the Hell Gate Bridge to the New Haven line, the new map, available in Grand Central Terminal, is a great improvement over the old one in terms of design, graphics, readability, and the quantity of information it contains.

Canadian News A former bus operator, now one of the wealthiest men in Canada, may soon be in a position to take control of Canadian Pacific, Ltd., the huge $10 billion conglomerate that is Canada's biggest private corporation and parent company of CP Rail.

Paul Desmarais, head of the Power Corporation, a giant holding company with interests in steel and paper mills, insurance, forests, mines, and hotels, has already accumulated almost five percent of Canadian Pacific and has an option to buy 5.6 percent more. Because Canadian Pacific's 71.7 million common shares are widely dispersed among its 62,000 shareholders analysts familiar with the company say that anyone who can acquire 20 percent of the firm can gain effective control. Though Power Corporation probably could not do that on its own, its thriving insurance subsidiaries might be able to borrow upwards of $500 million to finance purchases of additional CP stock, analysts say.

Curiously, when Mr. Desmarais was in business school 30 years ago, he wrote a research paper describing how it would be possible for someone to take over Canadian Pacific. Next May, Mr. Desmarais is expected to join CP's 22-member board of directors. To date, he has denied any intentions of anything other than a modest say in the company, but others remain skeptical.

Grand Trunk Corp., the holding company that owns the American railroad subsidiaries of Canadian National, may be getting ready to absorb the troubled Milwaukee Road, in reorganization since December 1977. Such a move would give CN an important western entrance to Chicago, something it does not now have. Furthermore, it would provide the means for Canada's government-owned railway to compete with the Canadian Pacific-controlled Soo Line for traffic from Chicago to western Canada. That could be done by using the Milwaukee Road's route to Duluth, and another Canadian National road in the U.S., the Duluth, Winnipeg & Pacific, to hook up with the CN mainline to the Pacific Northwest at Fort Francis.

Even if present discussions between the Milwaukee Road and Grand Trunk result in an agreement, however, any proposed transaction would have to be approved both by the Interstate Commerce Commission and the Reorganization Court.

Conrail in Canada The Canadian Transport Commission is angry at the way Conrail has been operating its Canadian properties and wants the system to either run them properly or sell them to someone who will.

In a recent decision, the Commission once again rejected Conrail's application to transfer ownership of the properties from the bankrupt Penn Central, even though PC failed five years ago. In order for Conrail to legally abandon any of its Canadian lines, it must first get the Commission to recognize its ownership of them. The properties include the Canada Southern Railway, a 225-mile line running between Niagara Falls and Detroit, the Detroit River Tunnel Co., the Niagara Bridge Co., and the St. Lawrence & Adirondack Railway.

According to E. J. Davies, Canadian director of the Brotherhood of Locomotive Engineers, the Canadian Transport Commission is afraid Conrail may abandon the lines if a transfer of ownership is approved. The CTC has been sharply critical of Conrail's financial reporting claiming that Conrail has diverted traffic from the Canada Southern in order to keep the line in the red. Also, Commission accountants say that the Detroit Tunnel Co. actually had a profit of $2 million, while Conrail showed only a two-dollar profit on its books. According to Conrail's own records, no income taxes have been paid on any of the properties since 1963.

Letters Though I now live in California I was particularly interested in the story of New York Central's S- and T-class electric motors in the first and second issues. I grew up near the Highbridge yards of the Central and saw the S's substituted for

NEXT

in ***Railroads Illustrated***

★ **Hoboken's Lackawanna Terminal:** 75 years old next February, this famous terminal has continued to maintain its graceful appearance while serving 60,000 commuters a day. Theodore W. Scull tells its story, from the opening day in 1907 to the present.

★ **Railroading on Michigan's Upper Peninsula, Part II:** Karl Zimmermann concludes his account of the enterprising shortlines serving this mineral-rich backwater of rural North America.

Plus: Our regular departments, a fiction story, and Reader's Contest No. 3.

The Railroads: View from Wall Street

Recent weeks have seen an overall decline in the U.S. stock market, attributed to fears of a larger-than-expected budget deficit, continuing high interest rates (which tend to pull money out of stocks into higher-yielding investments), and concern that business profits might be sharply reduced in a recessionary environment. An old Wall Street adage has it that in a bear market 90% of all stocks will decline and this has been generally true for the rails, even though earnings have held up very well compared to 1980's strong performance.

Earlier this year the Dow-Jones Transportation Average recorded an all-time high of 447.38; in mid-November it stood at 392.67, off about 13% from the highs but still well above the 260 level of late 1978. Some representative share prices at the end of October were Burlington Northern, 53⅝ (compared to a 1981 high of 77); Missouri Pacific, 78 (its 1981 high was 115); and Union Pacific, 50½ as against a peak earlier this year of 96¼. The three stocks closest to their highs were CSX, Norfolk & Western, and Southern Ry.

One of the most respected railroad analysts on the Street, Richard H. Fischer of Merrill Lynch, has divided the railroads into two groups which he terms the "resource" rails as opposed to the "pure" rails. The former derive a growing proportion of their revenue from oil and gas production, coal mining, and forest products. The latter have mostly stuck to their traditional business of hauling freight. Lately, the "pure" rails such as CSX, N&W, and Southern have outperformed the general market, while the "resource" issues have fared poorly. Undoubtedly, the speculation in energy companies last year pushed up prices of such stocks as Union Pacific and Santa Fe. The present oil glut prompted many to sell these same shares.

Traffic recently has been weak, with revenue ton-miles off over 5% from year-ago levels. But the nation's railroads have done a good job in controlling costs with the result that profits could rise for 1981 as a whole. A big help has been a 14% rise in freight rates. A minus that could affect profits, however, is the continuing weakness in the auto and housing industry; new home sales, for instance, were at their lowest levels since 1963.

On the labor front, legislation concerning the financially-troubled Railroad Retirement Fund has been passed by Congress with the result that the Fund has been put on a sounder footing. Commencing October 1, railroads paid a payroll tax of 11.75%, up from the previous 9.5%, and employees paid 2% on the first $22,000 of their earnings. For its part, the Government agreed that the Fund may borrow from the U.S. Treasury. Payments made to some retirees who currently receive both railroad retirement and social security will be phased out over a period of time.

Although as an industry labor costs are quite high, productivity improvements in recent years have helped reduce them somewhat. According to estimates prepared by Merrill Lynch, labor costs as a percentage of operating revenues have dropped from 53.8% in 1978 to 48.5% in 1980. The most efficient railroads by this measure are Southern Railway with total labor costs, including benefits, taking up 37.4% of each revenue dollar, followed by Missouri Pacific, 38.7%. Least efficient is Conrail. Total labor costs for that system amounted to 55.8% of operating revenues.

With a flat economy in store into early 1982, it is unlikely that many railroad companies will see further gains in per-share earnings over the near term. But with a recovery widely expected by next spring, most are well-positioned to take advantage of improving freight traffic when it comes.

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steam locos many times for the trip into Grand Central. I also watched the last 15 years of the building of the Terminal over the railroad yards now occupied by high-rise buildings. I recall seeing the T's hundreds of times running right past Highbridge when the electric division was extended to Harmon.—*Dr. Frederic C. Hargrave, Oceanside, Calif.*

I am pleased with *Railroads Illustrated;* it has a nice mixture of fiction and facts and you have given decent attention to railroad and locomotive news, too. I look forward to seeing more good color cover shots. Incidentally, I find it a little weird to see people's addresses printed with letters and photos.—*Jesse Svoboda, Pittsburgh, Pa.*

(*Ed. note:* We occasionally print street addresses so that readers may get in touch with each other, if they wish, either to reply to a comment or query, or to swap photos. But we will never print anyone's address if we are told not to.)

I would like to see personal account articles detailing travel on passenger trains of the 1940's and 1950's in *Railroads Illustrated;* also a column devoted to contemporary rail travel, including steam excursions.

My interests lie in riding and tape recording mainline steam excursions. I would be happy to swap cassette recordings with any other readers who might be interested.—*Robert T. Clark, 1605 West 25th St., Apt. 503, Sanford, Fla. 32771.*

I responded to your contest the same day my magazine arrived. If issues are mailed to all states on the same day, however, I'm afraid Eastern subscribers have a distinct advantage.—*Luke R. Sinclair, Prescott, Ariz.*

(*Ed. note:* Not necessarily. In fact, the first entries were received from readers in Minnesota and Indiana. But you do have a point. Awarding prizes on the basis of the earliest postmark gives an unfair edge to those who, by the vagaries of the post office, happen to receive their issue somewhat earlier than others. It also discriminates against the growing number of non-U.S. subscribers in Canada, Britain, and other countries who receive an issue later than their American counterparts.

In future we will announce a deadline date that gives everyone a chance to enter and select winning entries by a lottery system in the event of a tie. Prizewinners of Contest No. 2, by the way, will be announced—together with a new contest—in the next issue.)

True Tale Near-accidents are no joke in railroading and they can happen when you least expect it. Like the time I was skipper of a fast train running out of control and going up against a red signal with the engineer unable to halt its progress.

I was the conductor that day on the DFZ, a short, fast train with 49 cars of auto parts and piggyback trailers on Missouri Pacific's Arkansas Division. One of the hottest trains on the system, the biggest and best motive power was usually assigned and every effort was made by the crews and dispatchers to keep it on its 60 mph. schedule.

We started out smoothly enough with three large six-axle engines on the head end. As we experienced no delays after leaving Poplar Bluff, we knew we'd soon catch up with a drag freight that had departed town some hours ahead of us. A few minutes later, the talk on the radio told us that we were closing in and that the dispatcher was putting us around him on the double track at Newport. Thus, when I felt the slack run in on the train between Tuckerman and Newport I was not surprised.

"Jess is shutting off to keep from setting his brakes at the approach to the Junction," I commented to my brakie as we rolled down the line.

But a few seconds later I was shaken up when my engineer came in on the radio. "Let me know when the caboose stops,

Bill," he [illegible] me.

That i[illegible] usual comment made by an engineer w[illegible]n a train goes into emergency. I glanced [illegible] the air gauge. It read 80 pounds.

"Are you in emergency?" I asked Jess.

"Have been for over a mile and we're picking up speed."

I immediately reached over and pulled the conductor's valve into emergency position and dumped the entire train line, putting the train into full emergency. After we stopped I started for the head end, inspecting each car as I went along. When I reached the engine I found the head-end crew on the ground behind the rear unit inspecting the head car.

"What's the matter?" I asked the rattled head-end crew. What they told me gave me quite a shock.

The train line on the car behind the engine had fallen down to the ballast and separated the air hoses, but it doubled up when it struck the ground. That put the three units into emergency, while the kink in the train line prevented the air from being dumped to set the brakes on the rest of the train. That was the run-in I felt just before Jess radioed back to me.

When Jess realized that his units were in emergency he bailed off the engine brakes to keep the wheels on them from sliding, figuring that the brakes on the cars behind him would stop the train. But when he noticed the train was picking up speed instead and that he was going to be shoved right past the red signal, he called me. This move by Jess and my response in dumping the air from the rear end saved a serious accident.—*William T. Church, retired Missouri Pacific conductor, North Little Rock, Ark.*

Foreign Transit Notes For the first time in 119 years fares on London's Underground have been cut, by an average of 25 percent. The change—which also applies to London Transport's buses—was initiated by the recently-elected Greater London Council, now controlled by Britain's Labour Party, and took effect in October, to the delight of most Londoners and foreign tourists. The world's oldest subway system, London's Underground, or "tube" as it is often called, relies on a graduated system of fares depending on the distance traveled. The minimum is now 20 pence, or about 40 cents. Early reports indicate that the lower fares are encouraging more people to ride the system; that, in turn, should help make up much of the revenue lost due to the reduced fares.

The Paris Métro, the last subway system in the world to operate two-class trains, is expected to eliminate its center-of-the-train first-class cars by the end of 1982. The decision to go one class, made by France's newly-elected Socialist government, may be more politically-motivated than economically based. Although only 4.5 percent of the daily riders buy first-class tickets, that minority generates about $10 million in extra annual revenue, income that will be lost under the new system.

First-class Métro travel has steadily declined in the last decade, mostly due to substantial improvements in the creature comforts of second-class passengers. The older cars with wooden seats in the lower class versus the thin layer of padding in first class have been replaced, for the most part, by new equipment that offers virtually the same amenities.

Thus far, the only vociferous group in opposing the change are elderly passengers afraid of not being able to get a seat in a more evenly patronized one-class system. Other than during the morning rush hours when trains operate as one class anyway, the first-class section tends to be lightly used, and paying the 50 percent surcharge almost always guarantees one a seat.

Some experts in the field consider that the Régie Autonome de Transports Parisiens operates the finest transit network of any major city in the world. The Paris Métro has been undergoing a continual program of upgrading for the last 20 years, with entirely new express routes, refurbished and rebuilt stations, modern quiet-riding equipment running on rubber tires, and a new signal system that allows for closer headways and more trains, resulting more room per passenger.

It is important to keep in mind that while some cities are blessed with brand-new subways made up of only a few lines, the Métro is a dense network that goes practically anywhere in Paris—a city of 9 million—with efficiency, comfort and style.

French Government Tourist Office

Lightly used first-class cars are due to be eliminated on Paris' Metro. Scene is at Louvre station, where statues are displayed.

Where U.P. Means Ore and Alcos:
Railroading on Michigan's Upper Peninsula

Bound for Green Bay, Milwaukee Road No. 420 crosses a bridge at Stiles, Wisc., just south of Upper Peninsula country in August 1979. Karl R. Zimmermann

by Karl Zimmermann

Seven days a week, just north of the small city of Iron Mountain on Michigan's remote Upper Peninsula, occurred for many years—and may soon occur again—an exercise of interest to those who watch trains. There at Antoine, as employees' timetables list the small interchange yard, diesels—running first under the Milwaukee Road and later the Escanaba & Lake Superior aegis—turned over strings of ore jennies to Chicago & North Western units—first, Fairbanks-Morse Train Masters, then high-hood Alco C628's.

The 70-ton ore cars were loaded with taconite pellets, bound from the Groveland Mine at Randville to the C&NW ore dock at Escanaba, on Lake Michigan's shore. (On January 10, 1981, Groveland Mine was temporarily shut down as a result of the soft market for taconite; reopening is looked for in the first quarter of 1982.) In this long-running and otherwise traditional drama, the E&LS units were new actors, having taken over in the spring of 1980 from Milwaukee Road F-units.

Say U.P. railroading here and you're not referring to the slick, high-speed, main-line operations of the Union Pacific. Instead, you mean the brawling, basic business of moving iron ore to dockside. You mean stark, uncompromising countryside, a lightly settled outpost far from the base station of urban and suburban America. You mean an unlikely collection of motive power—much of it aging, most of it produced by the smaller locomotive builders—lugging its guts out on the way to oblivion. In common with the coal-haulers of Appalachia, the Upper Peninsula iron-ore railroads are a unique genre, to be prized for that uniqueness. Stubby ore cars. Monumental ore docks. Rights-of-way deep in taconite pellets, those marbles of processed ore as slick as a bed of ball bearings.

Though the Groveland-Antoine-Escanaba two-step was perhaps the single most interesting Michigan ore haul, it was only one of half-a-dozen trains on the North Western dedicated to moving taconite, and, just to the north, the Lake Superior & Ishpeming ran at least that number, all of which continue today. For the Escanaba & Lake Superior, however, it was the one and only—as it had been for the Milwaukee Road, operator of the Groveland-Antoine part of the haul until March 1, 1980. On that date, bankrupt CMStP&P embargoed 4,600 of its 9,500 route-miles, forming a core system known as "Milwaukee II." All the road's Upper Peninsula trackage was included in the embargo. Exit the Milwaukee Road.

CMStP&P's Upper Peninsula operations had centered around Channing, a former division point which remained important even after it lost that official status and is central even now, for the E&LS. As recently as the

An Escanaba & Lake Superior train from Wells arrives at Channing, entering former CMStP&P trackage. On the head end are two of the four F-7A's leased from Soo Line. Roger P. Cook

spring of 30, clutches of Milwaukee's or[illegible] F-units gathered there three eve[illegible]gs a week, to be dispersed the follo[illegible]ng mornings, north or south, back to Ontonagon, Mich., or Green Bay, Wis. Channing was also home base for the F's of the daily "mine run" to Groveland, so the double-ended wooden engine shed and oil-drenched ready tracks were routinely jammed with ten or more "covered wagons."

The Superior Division, as the Milwaukee Road's "North End" had been known before becoming a part of the Wisconsin Division—and, eventually, of the Escanaba & Lake Superior Railroad—was once the Milwaukee & Northern Railroad, which had assumed a number of smaller roads—the Wisconsin & Michigan, the Republic Branch Railroad, and the Ontonagon & Brule River—before being conveyed to the Chicago, Milwaukee & St. Paul in 1893. Iron ore was the cargo of overwhelming importance, and before long the Milwaukee was serving mines in Iron Mountain, Republic, Champion, Quinnesec, and Groveland.

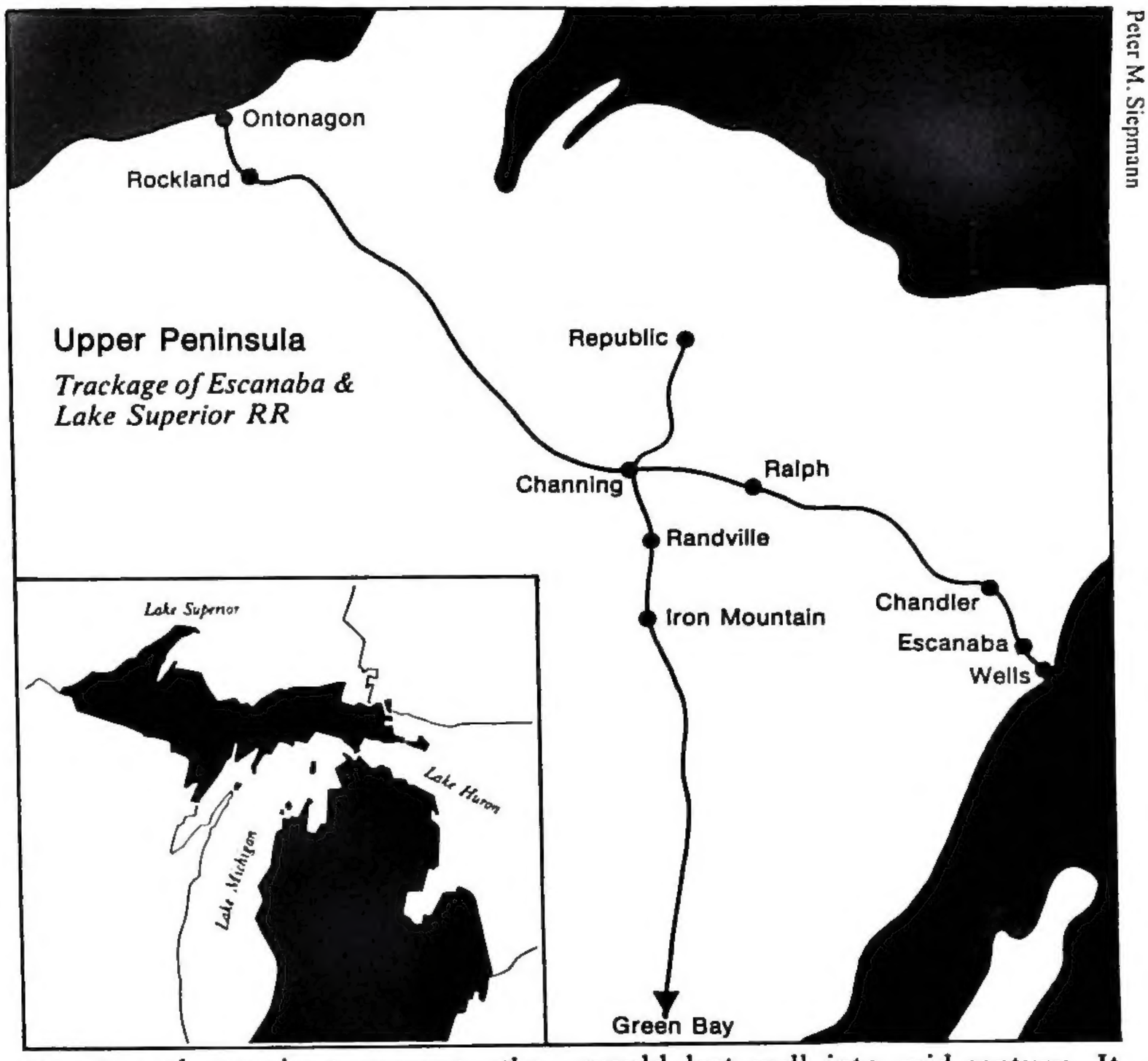
Later, a branch was built from Kelso Junction, eight miles northwest of Channing on the line to Ontonagon, to Crystal Falls and, eventually, Iron River, twin cities on the Menominee Range, opening up another source of ore to the Milwaukee Road.

At the time CM&StP assumed the Milwaukee & Northern, most ore moved directly by rail to smelters located in Wisconsin. By the turn of the century, however, that practice had largely given way to shipment by ore boat on the Great Lakes. Initially CM&StP, having no ore dock of its own, turned over its tonnage to the Soo Line at Pembine Junction, Wis., 37 miles south of Channing, for shipment from the Soo's dock at Gladstone, Mich.

In 1900, the Milwaukee built its own ore dock at Wells, Mich., just north of Escanaba, on Little Bay De Noc. Access was arranged via 63 miles of trackage rights over the Escanaba & Lake Superior, which had just been completed between Channing and Wells. This trackage-rights arrangement ushered in the era of heavy ore haulage on the CM&StP, an era that would last well into mid-century. It also initiated a relationship that would endure throughout—and, in fact, eventually would punctuate—the Milwaukee Road's tenure on the Upper Peninsula.

Any railroad tied tightly to a natural resource—be it timber, coal, iron ore, or whatever—is almost certainly fated to change. So it was for the Milwaukee's Superior Division. As the high-grade ore in the area played out, mines closed. The names Iron Mountain and Iron River came to show a heritage, not a current livelihood. The Iron River Branch was lifted, and the Republic Branch to Republic and Champion—originally the main line, with through connections via the Duluth, South Shore & Atlantic—was closed. Eventually all that was left was the Groveland Mine at Randville, a few miles south of Channing.

What allowed Groveland to survive into the 1980's was the innovation that has kept iron mining alive elsewhere on the U.P.: pellet ore, which today accounts for virtually all of the iron shipped. The oxide pelletizing process uses taconite, a low-grade iron ore. At pellet plants, after iron-bearing rocks are crushed and ground, the iron is oxidized and waste materials removed. The resulting iron-ore concentrate, a



Upper Peninsula iron ore was once hauled by the Milwaukee & Northern, a CMStP&P predecessor. No. 18, built by Grant in 1872, is seen at Menasha, Wisc., in 1887.
Collection of Harold K. Vollrath

powder, is dehydrated, rolled into balls one-half inch in diameter, and fired in kilns. What results are little irregular reddish-brown marbles which have proven both convenient for shipping and effective in blast furnaces. The best feature of all, naturally, is that pellets can be made from low-grade ore that otherwise would be valueless.

Such taconite pellets were the business of the Milwaukee's last remaining ore job, which in its final days generally went to work at Channing at noon. A pair of back-to-back F-units coughed to life with a belch of yellow-gray exhaust and rolled down the engine-terminal lead to the gray clapboard depot. Orders in hand, the head-end crew clambered into the cab of the lead unit. After grabbing a bay-window caboose from a siding across the main from the depot, the mine run—train No. 446—was off for Groveland. Though the Milwaukee did bring in raw materials—hoppers of clay, fuel oil, sulfur dioxide—and machinery to the pellet plant, this move was more often than not a caboose hop. About ten miles south is the junction with the spur to the Groveland Mine. The F's and caboose backed in the four miles to the huge open-pit mine, owned by the Hanna Iron Mining Company.

In due course the F's tied onto 45 carloads of taconite pellets and trundled them back out the spur to the main and south for a dozen miles to the interchange with the Chicago & North Western at Antoine, in North Iron Mountain. After dropping their train, the F's did the local switching at Iron Mountain, delivering cars dropped by the Channing-Green Bay freight. By late afternoon C&NW's C628-powered Antoine Turn had arrived from Escanaba, bringing empty ore jennies for Groveland. All that remained was for the Milwaukee F's—now as train 447—to take those empties back to Groveland, then run to Channing to tie up for the night.

Meanwhile, brethren F's had been hauling general merchandise trains over the CMStP&P's North End. Consists were dominated by cars bound to or from the Champion-International paper mill at Ontonagon, on Lake Superior. (The mill generates a substantial flow of paper products for rail shipment and receives scrap paper, caustic soda, and coal.) Service on the North End was triweekly; in the Milwaukee's waning

Photos both pages by Karl R. Zimmermann

days, train 421 left Green Bay and 450 Ontonagon on Tuesdays, Thursdays, and Saturdays—meeting in Channing. After the mine run returned to rest from the day's labors, the F-unit clan had gathered for the evening in a show of strength, deceiving and fleeting. Then in the morning—on Mondays, Wednesdays, and Fridays—the F's scattered: on No. 420 for Green Bay and No. 451 for Ontonagon.

The Milwaukee Road's North End operations were as countrified as the U.P. itself—leisurely ambles with outdated locomotives through woods and fields, watched closely by the townsfolk in the little villages along the route. There hasn't been a passenger train on the Milwaukee's former Superior Division in years; the *Chippewa* to Ontonagon was cut back to Channing in the early 'fifties and discontinued altogether in 1960, and the *Copper Country Limited* to Champion (where Soo took over for the run to Calumet) was lost in 1968. Still, the local citizenry faced the loss of its freight-only railroad to the Milwaukee's "core" plan and resultant embargo with a proprietary indignation.

Milwaukee Road F unit No. 450 is bathed in late afternoon light between Ontonagon and Rockwood in August 1979.

◄ *A typical mine run in July 1979 from Groveland arcs toward junction with main.*

▲ *A mine run gets ready to leave Channing in the last days of Milwaukee Road service in the area. Note lettering on locomotive.*

Karl R. Zimmerma

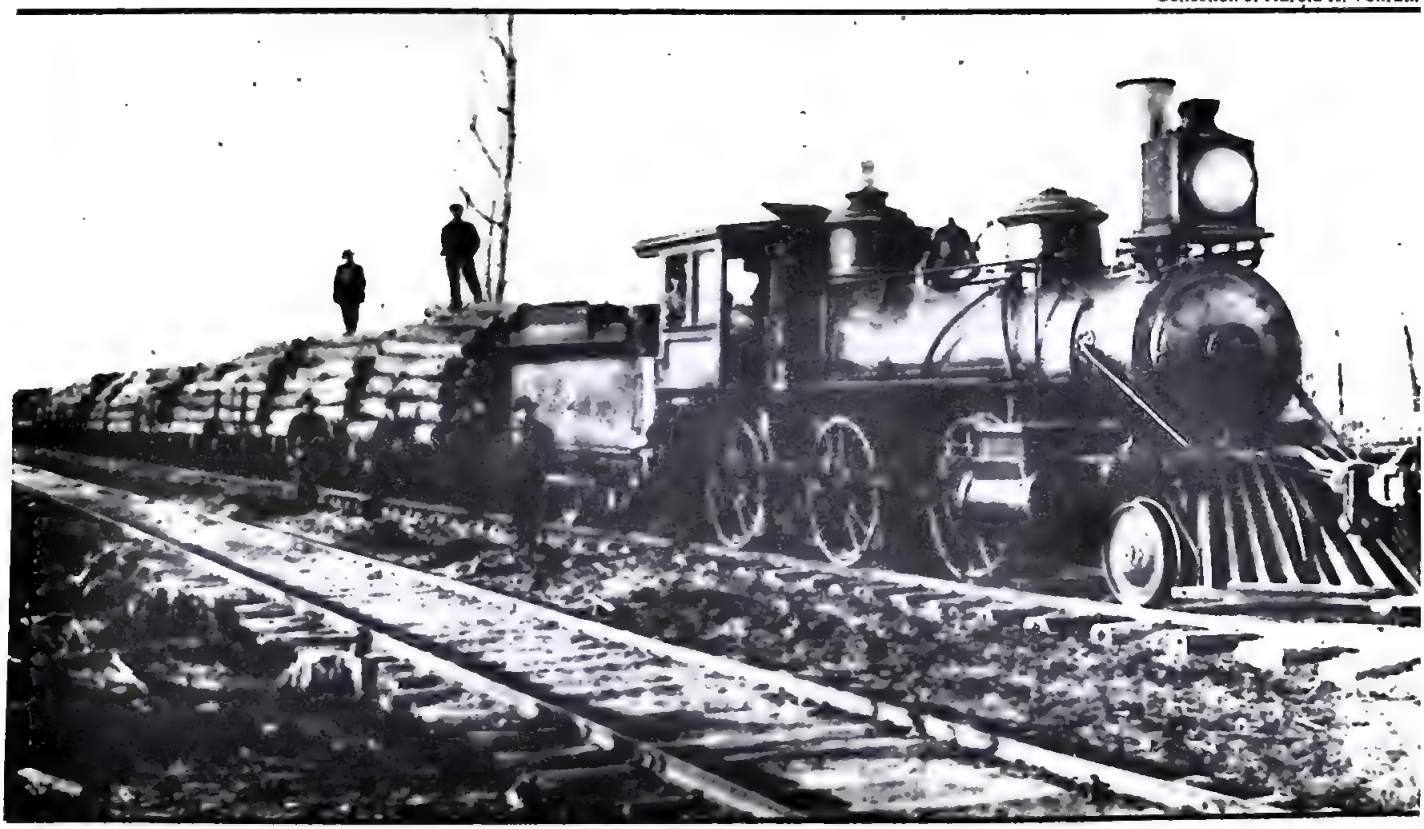
Of a summer's evening in Rockland, a small town up toward Ontonagon, you might have found a cluster of folk chatting at trackside, listening as a quartet of F's blew for a distant crossing and crawled up the curving grade to town, the throbbing of the engines rising and falling in waves. At Ontonagon, a blond-haired toddler rode his father's shoulders, wide-eyed as F's put together No. 450. Emblematic of CMStP&P's North End was Channing, its headquarters—a sleepy town of little more than depot, lunchroom, supermarket, a few bars, a gas station—just a wide spot in the road. Without the railroad, Channing wouldn't amount to much.

Fortunately for Channing, the railroad remains, and the locals are undoubtedly gratified. Things haven't actually changed that much on the Milwaukee Road's Upper Peninsula rails—except that they're no longer the Milwaukee Road's, belonging instead to the Escanaba & Lake Superior, which only a few years ago seemed destined for extinction, not growth.

Agent at Channing, July 1979, in an office that hasn't changed much in 40 years.

Collection of Harold K. Vollrath

The E&LS, incorporated in 1898, was built as a logging road. Its 63-mile main stretched from a connection with the CM&StP at Channing to Wells,



The Escanaba & Lake Superior originally hauled timber in Michigan's Upper Peninsula. One such log train is headed by E&LS engine No. 2 at an unidentified location around the turn of the century.

the road's quarters, while a branch reach... miles south from there to conn... with the C&NW at Escanaba, touching the Minneapolis, St. Paul & Sault Ste. Marie—the Soo Line—in the process. In addition to E&LS timber, CM&StP's iron ore moved over the Channing-Wells line. These commodities, along with some general merchandise, kept E&LS healthy enough for a time. In the diesel season, E&LS operated with five Baldwin switchers, becoming a quaint short line with suitably weed-grown right-of-way.

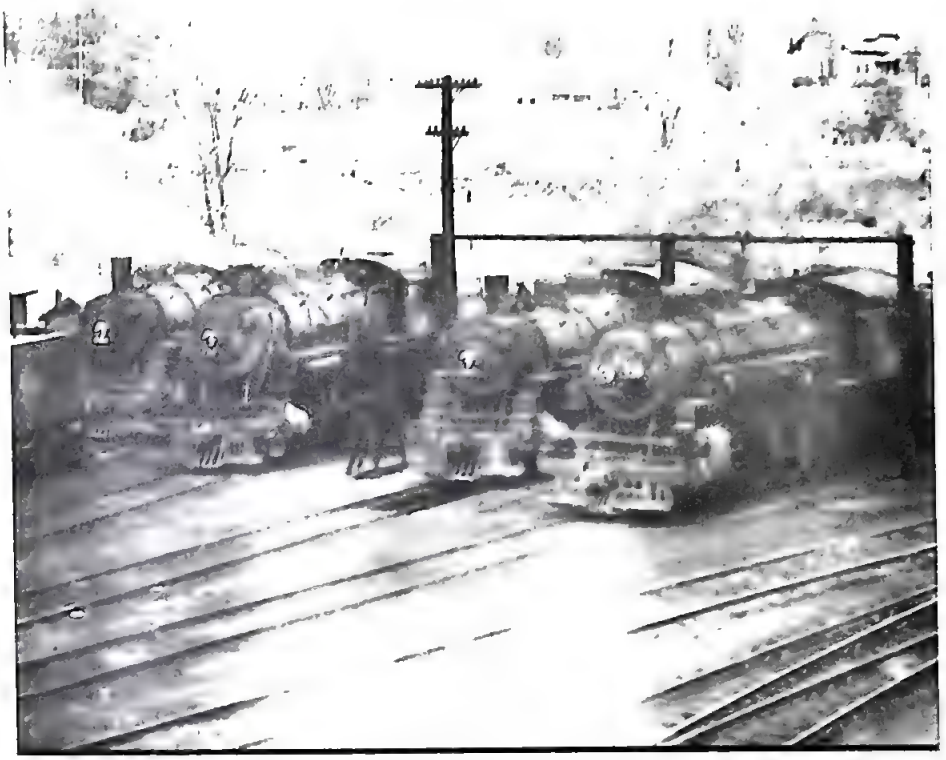
E&LS's health was inevitably linked with the Milwaukee Road's, however, and both declined together. The Milwaukee had closed its Wells ore dock, removing heavy tonnage from the E&LS, and more deterioration lay ahead. By the mid-1970's Escanaba & Lake Superior's little Baldwins were calling at Channing only once or twice a week; in 1978, fearing the loss of the CMStP&P connection through that line's abandonment, E&LS filed an abandonment application of its own. Yet another shortline seemed about to pass into history.

Happily, that was not to be, for the Larkin family of the Twin Cities stepped in to purchase the line and cancel the abandonment application. President John Larkin kept things going and growing until February 1980, when the little railroad took a big step. E&LS entered the void in Upper Peninsula railroading created by the Milwaukee Road's embargoing of its lines there. For $6.3 million, the once-little railroad began a three-phase purchase of 210 miles of CMStP&P trackage from Ontonagon and Green Bay. On March 10, E&LS took over operations.

To end a reliance on the Milwaukee Road's ailing F's, E&LS leased five Alco RSD-12's and one GE U23C from neighbor Lake Superior & Ishpeming, along with a U30C and three F's from Milwaukee. When the summer season of peak iron-ore hauling arrived and LS&I needed its units back, E&LS leased a pair of Conrail SD40-2's—Nos. 6471 and 6521—which were regularly assigned to the mine run to Groveland, and four F7A's from Soo Line.

Operated in pairs—Nos. 2225A/2225B and 212B/213A initially—these F's alternated in Channing-Ontonagon and Wells-Channing service, backed by Milwaukee F7A No. 117C as standby—the lone Indian

D. Steffen photo/collection of Ed Selinsky



Lineup of steam power at Stambaugh, Mich., May 31, 1948. From left to right: Chicago & North Western Nos. 386, 446, and 1378; and Milwaukee Road No. 915. All were used as switch engines working nearby mines in the Upper Peninsula.

Karl R. Zimmermann

A well-worn Milwaukee Road F unit gets its cab window cleaned at Channing.

Antoine-bound, a mine run pulls out of Groveland heading for the main line in the summer of 1979. Karl R. Zimmermann

remaining from among many. This Milwaukee F was also kept busy hauling work trains to repair the decrepit Channing-Ontonagon section of the new E&LS.

By the time winter ended the work season, E&LS had replaced over 50,000 ties, continuing work begun in 1979 with State of Michigan funding. Milwaukee U30C No. 5658 continued under lease, handling Channing-Green Bay trains.

As for the Soo Line, it called its F's back in September 1980, leaving E&LS once again in the market for power. By the summer of 1981, its needs reduced by the Groveland shutdown, E&LS was leasing just a pair of Conrail GP-38's and an Alco road switcher (changed out frequently) from Green Bay & Western's large fleet.

In any case, the Escanaba & Lake Superior's long-term motive power future appears to hold mostly Baldwins, remarkably enough. Shortly after expanding its operations, the E&LS supplemented the five switchers on hand by purchasing three unserviceable Baldwin road switchers from Michigan Northern—RS-12's Nos. 212, 213, and 215. No. 1216, one of Castolite Corporation's pair of ex-Delaware & Hudson Sharks, had been leased earlier and had seen some action before breaking down and being taken out of service.

E&LS is in the midst of an ongoing in-house program to rebuild its Baldwin power. First fruit was 660-hp switcher No. 101, rebuilt at Wells under the supervision of E&LS master mechanic Dick Sandstrom, with the assistance of Fred W. Cane—the last Baldwin-Hamilton Corporation representative. Cosmetic highlights were indoor-outdoor carpeting in the cab and an elegant exterior paint job in the old Great Northern green-orange scheme. To follow within the next year were E&LS's own 1000-hp Baldwin switchers Nos. 201 and 202, as well as RS-12 No. 213, one of the two road switchers acquired from Michigan Northern.

In its first venture beyond the shop area, on June 3, 1980, rebuilt Baldwin switcher No. 101 ran light to the nearby Mead Paper Company to pose for pictures. Its initial assignment—as switcher in the Wells-Escanaba area—would routinely bring it to the Mead plant in the days ahead.

This switch job has been increased to five days a week and the Wells-Channing line haul to five, six, and laterly seven, with coal bound for the Champion mill on Ontonagon the primary business. Previously, these two functions had been served by a single crew and locomotive working five days. Frequency on the newly acquired lines went up too—from three to six or seven times per week Ontonagon-Channing and Channing-Green Bay.

In addition to its primary goal of providing better service to customers, the increased frequency allows the E&LS to utilize its small locomotive fleet more efficiently—by running more, shorter trains, each requiring less power—and to move freight cars off its line more quickly for savings in per diem charges. Operation of the mine run remained daily, as it had been for CMStP&P. So for a time, Channing was actually busier than ever—though this new infusion of activity did not change its countrified ways.

(Next issue, coverage of iron-ore railroading on Michigan's Upper Peninsula continues as we examine the Lake Superior & Ishpeming and Chicago & North Western.)

California's New Railroad Museum

by Roger Arcara

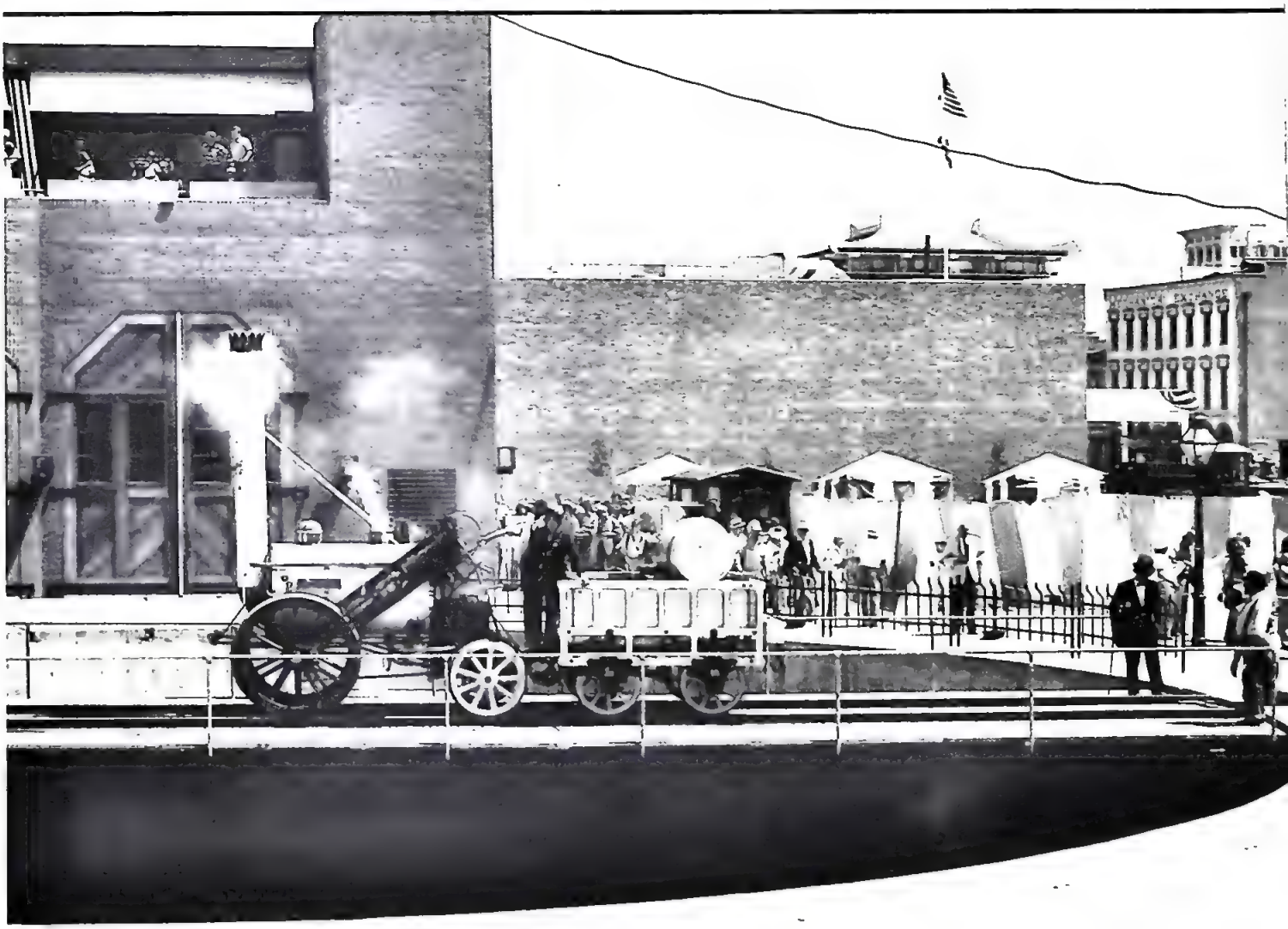
The world's newest museum of trains is open, and a magnificent establishment it is! On May 2nd, 1981, the California State Railroad Museum, at Sacramento, took its rightful place in the roster of such institutions as the B&O Transportation Museum, the National Museum of Transport, the York Railway Museum in England, the Henry Ford Museum, and the numerous smaller but all important museums around the world dedicated to the preservation of historical railroad equipment.

Such institutions do not spring into being overnight. The CSRM traces its origin back to 1937, when the late Gilbert H. Kneiss, founding chairman of the Pacific Coast Chapter of the Railway & Locomotive Historical Society, saved an 1875 locomotive, the *J. W. Bowker*, and a coach built in 1881. As time passed, the Chapter acquired other old locomotives and cars, and spent much time and effort in renovating them to a beautiful aesthetic condition, and to operating ability as well.

The Chapter's growing collection formed the nucleus of the present museum. Frequent public displays of the old-time engines and cars brought public admiration, and the collection increased—but so did the problems of storing, reconditioning, and maintaining the items. Various pieces were scattered here and there as storage space could be found, while the quest arose for a single, unified museum site. During the 1960's, a building in San Francisco was considered, but had to be rejected.

Finally, it was decided to establish the museum at Sacramento, on the site where the original western terminus of the Central Pacific Railroad had been. The plan was given impetus by the approaching centennial, in 1969, of the completion of the transcontinental railroad, and by the rise of Old Sacramento, a restoration of a neighborhood of early buildings right near the site of the old C.P. terminal.

The years of intensive efforts came to a climax this past May 2nd, when, amid appropriate ceremonies witnessed by huge crowds under the California sunshine, the Museum was for-



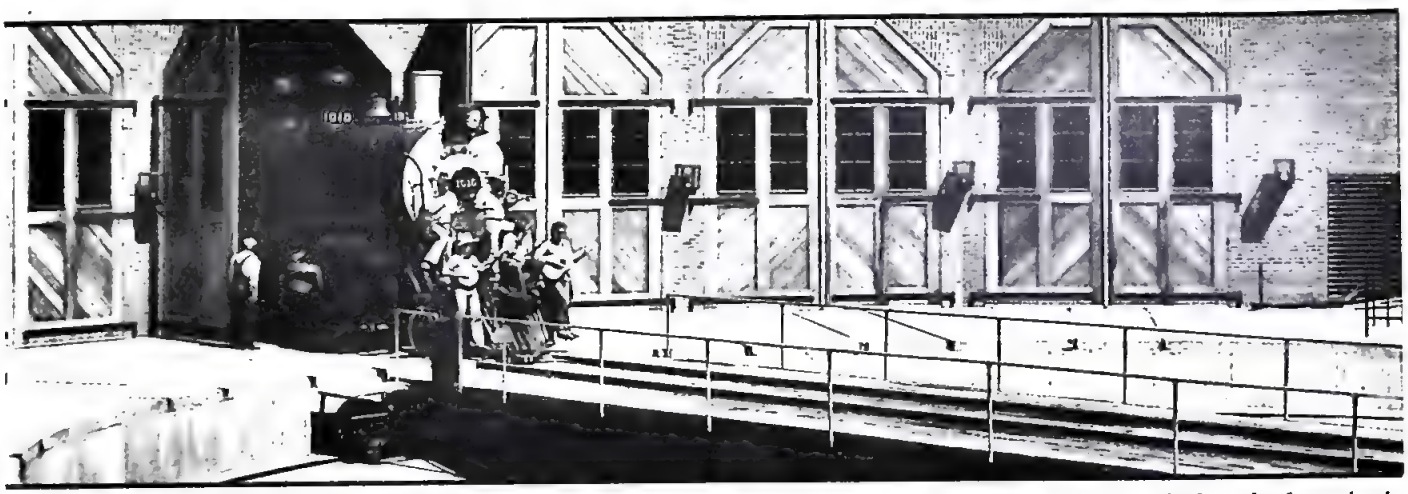
Railfair Sacramento 1981—A replica of Stephenson's Rocket, *provided by the National Railway Museum in York, England, steamed onto the turntable during Scene II of the pageant.*

Photo by William T. Morgan

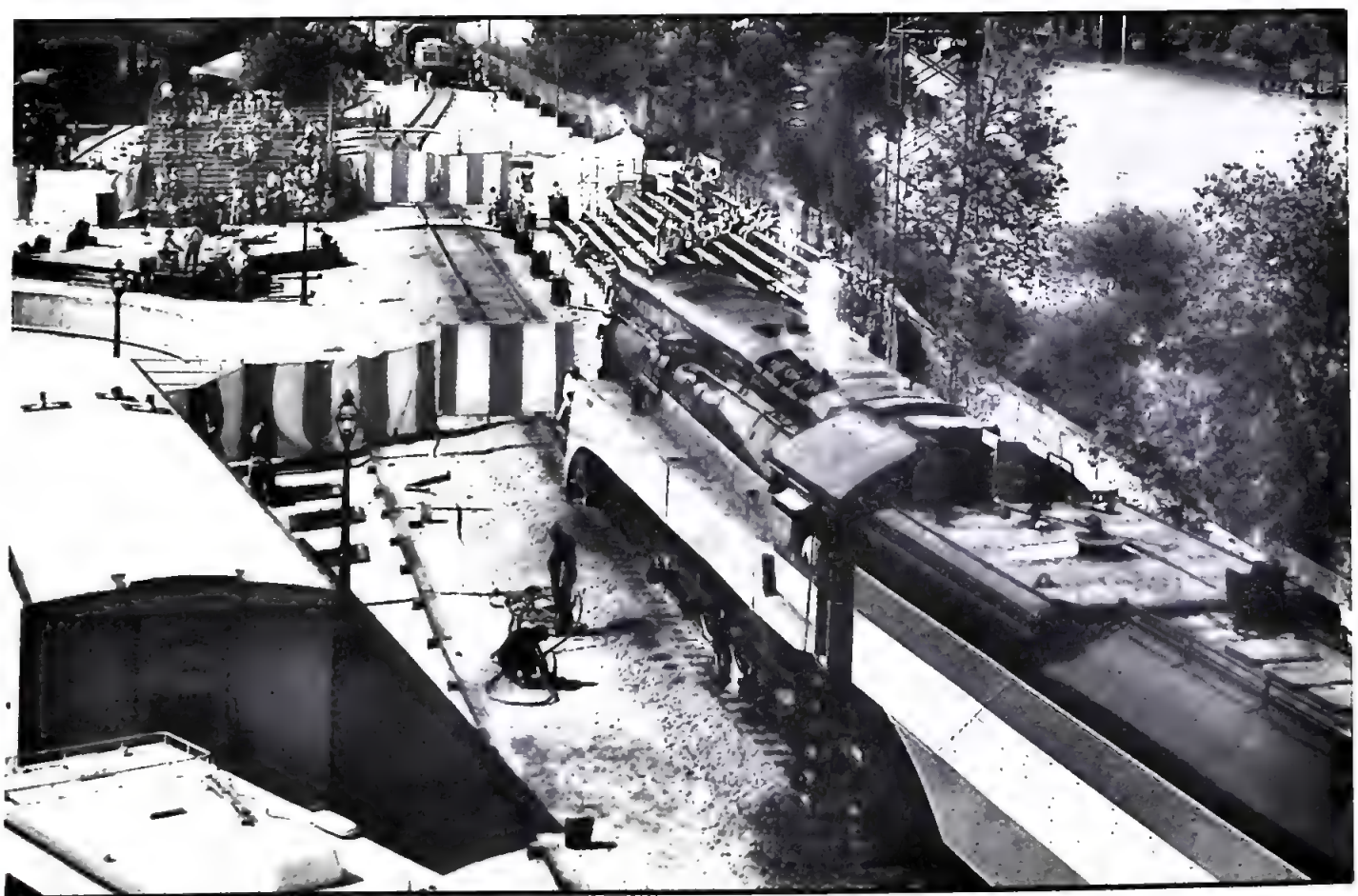
mally opened. It consists of several buildings, the first to be built being a full-size replica of the original 1867 Central Pacific terminal, on its original site, and housing several locos and cars for display. A reconstruction of the building housing the original Central Pacific offices was also built, but the big attraction is the main museum building, a huge brick complex including a theatre, the main display hall, balconies, a roundhouse, and an outdoor turntable and staging area for displays such as the pageant held in conjunction with the opening.

Inside this main building are found locomotives from the little 4-2-4 *C.P. Huntington* to the enormous 4-8-8-2 Southern Pacific cab-forward articulated, last survivor of its type. Freight and passenger cars, some open to public inspection, range from the Civil [illegible] recent times, and include [illegible] examples of craftsmanship in restoration. A narrow-gauge train is displayed on a Howe truss bridge at balcony level. The 4-4-0 *Gov. Stanford* forms the centerpiece of a diorama in a hall of its own, an arresting, full-size, three-dimensional work of art.

That such a museum could be brought to reality in these troubled



Santa Fe 2-6-2 #1010 rolled out to begin Scene VII of the pageant as the South Loomis Quickstep Band, perched on the front, broke into a medley of railroad songs. Loco wasn't under steam, but was moved by air pressure; she is permanently enshrined in museum.



SP #4449 in Daylight *color scheme at the Railfair site on May 2, 1981. In the middle and far background on the left is part of the turntable area and a portion of the rebuilt 1867 Central Pacific station.*

Photos this page by William T. Morgan

mes is a tri[illegible] those who worked long and [illegible]iduously and contributed so m[illegible] to bring everything together. The results can be best appreciated by being seen. The one aspect of the museum which prevents perfection from being attained, however, is the installation of artificial lighting in the main display areas: it consists of an arrangement of spotlights, mostly shining straight downward, creating scattered bright spots on the floor and on parts of the equipment, but leaving too much in comparative darkness or unevenly lighted. Surely, this is inappropriate for displays of this type; the lighting-fixtures even obstruct much of the view of the main floor from the balcony. The removal of the spotlight system and the installation of an unobtrusive arrangement of even illumination would bring the museum interior up to the highest standard of aesthetic display, and photo opportunities would be improved.

Sacramento, the capital of California, now reigns as the capital of railroad history in the West!

Two photos by Roger Arcara

The Gov. Stanford, *in a diorama inside the museum, is depicted emerging from a tunnel and heading into a replica of a snowshed.*

April 25, 1981: Restored Southern Pacific No. 4449 departs Portland, Oregon, where she will travel under steam to Sacramento, Calif., for Railfair 1981. The engine played a major role in that pageant.

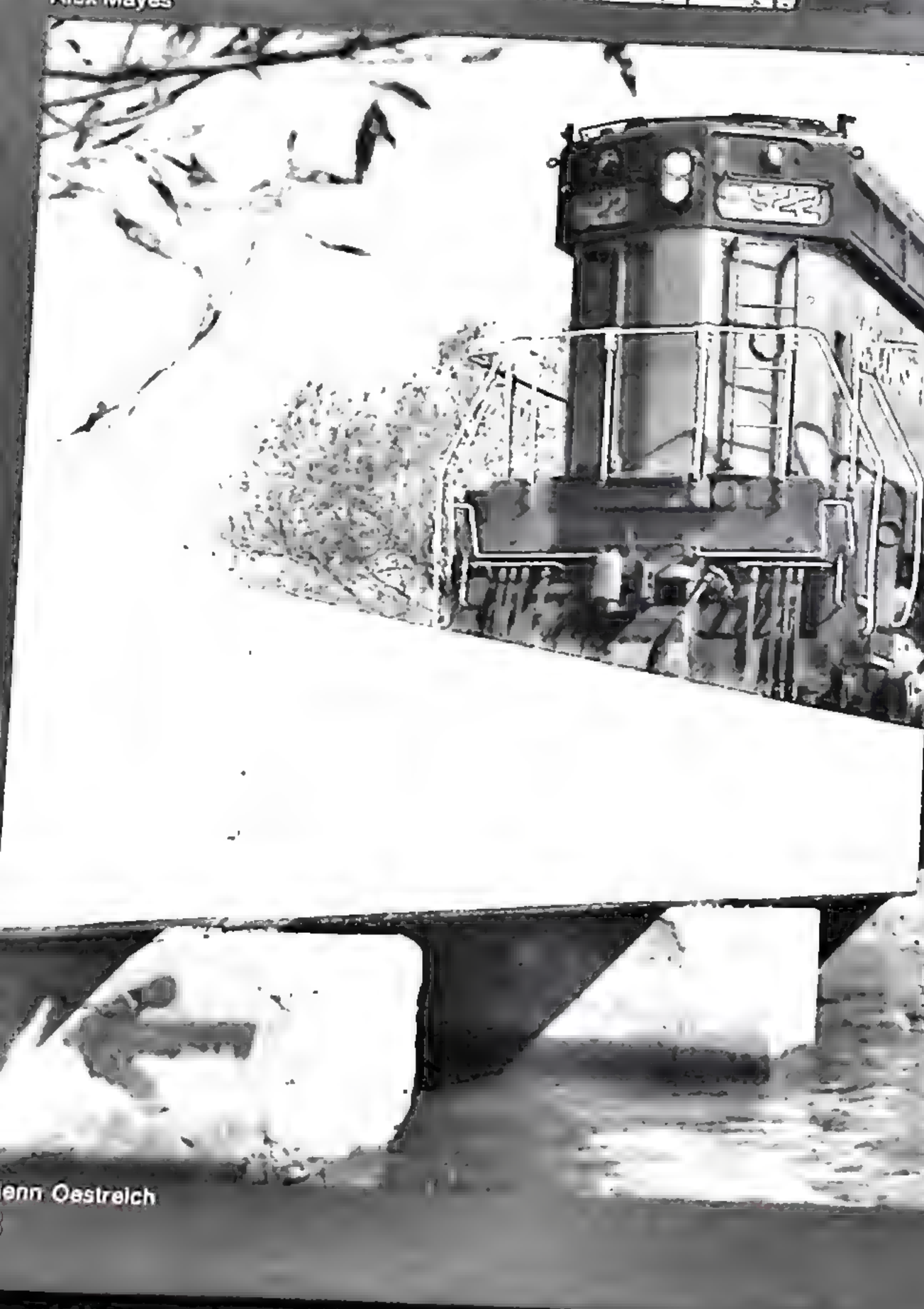
Photo by Al Schindler

Photos of the Rails

(Below) Despite its financial woes, Auto-Train was still operating on a regular schedule on April 4, 1981, as train #3 sped across the Occoquan River southbound on the Richmond, Fredericksburg & Potomac. At right, Chicago & North Western GP-50 #5093 and SD40-2 #6880 rumble through the Illinois countryside taking train 383 south toward St. Louis in December 1980. (Bottom of page) A lone fisherman's concentration is unbroken as the massive shape of Wisconsin & Southern's SD7 #522 looms from behind the thickets at Beaver Dam Lake near Fox Lake, Wisc. This 145-mile shortline began operating July 1, 1980, taking over service of the Milwaukee Road's Northern Division. Engine is also ex-Milwaukee Road and was built in 1953.

Alex Mayes

Wayne Bridges



Glenn Oestreich

Wayne Bridges

William T. Morgan

(Above) Just out of Tunnel 27 near Chatsworth, Calif., on May 22, 1978, an eastbound Southern Pacific local is returning to Northridge from Simi Valley. GP-35 #6558 and two helium cars are dwarfed by huge rock formations as they descend Santa Susanna Pass. (Left) Illinois Terminal train #201 approaches the old GM&O diamond at Minier, Ill., in September 1981. Although road technically has belonged to the N&W since September 5, 1981, labor differences between IT operating personnel and Norfolk & Western management mean that trains will still operate as Illinois Terminal until an agreement is reached.

Collector's Corner

by Stanley L. Baker

Collecting Uniform Buttons

Many rail buffs I know shy away from collecting the larger railroadiana collectibles such as lanterns and lamps, wall calendars and posters, oil cans, tools, depot signs, and the like. That's understandable, since those who live in an apartment or small home find there just isn't enough room to display them to advantage. If this is a problem for you, why not go in for some of the smaller items? One suggestion is to collect railroad uniform buttons. They certainly don't take up much space; in fact, a popular way for collectors to display them is by mounting them on panels, framed to hang on the wall. Another ingenious way to exhibit these shiny buttons is on top of the living room coffee table, attractively arranged and protected under a sliding pane of glass, or similarly displayed at one end of the bar in the family amusement room.

A suitably attired trainman in uniform.

The next time you go to a flea market, garage sale, estate sale or antique shop, rummage through the boxes containing old buttons and be on the lookout for those pertaining to railroads. You might just find a couple of uniform buttons overlooked by a previous scrounger; some good finds have been made this way.

For the newcomer to the field — railroad employees connected in any way with passenger trains were required to wear uniforms with regulation buttons. These were issued in two basic sizes, approximately ⅞-inches in diameter for the coat and ⅝-inches in diameter for the vest and coat sleeves (occasionally, other sizes are also found). They were made with either a domed or a flat face, in gilt or in chromium metallic finish, commonly referred to by rail button collectors as

All photograhs by the author

Some examples of railroad uniform buttons made both in domed shapes and flat faces.

Uniform buttons came with two attachments, a loop shank for the toggle pin, and a metal plate with a catch to slide over the suit button. Wire prong button is for cap.

A little research is sometimes needed to decipher buttons with intertwined initials. At left, Delaware, Maryland & Virginia; right, the Shore Line Electric Railway.

An assortment of uniform buttons showing individual occupations.

An unusual dual-marked button from a C&NW predecessor, the St. Paul & Sioux City.

"gold," "silver," "brass" or "nickel." Stamped on the back of each button is the name of the manufacturer or supplier. Scovill Manufacturing Company and the Waterbury Button Company, two of the most famous, have been furnishing railroads with buttons for well over a hundred years. The American Railway Supply Company and the Chicago Uniform and Cap Company were also long-time suppliers.

Trainmen's uniform buttons came with two types of attachments. One featured a loop shank through which a toggle-pin could be inserted to anchor the gilt knob in place on the garment. The other type had a patented sliding metal plate (called the Fox Patent) to secure the hollow domed shell over the suit button already attached to the coat or vest, thus converting it into a gold or silver regulation uniform button. The uniform cap had two buttons, one for each side of the crown. These were made with twin prongs that were spread apart inside the sweatband to secure them in place.

Usually, the name or initials of the railroad are embossed on the surface of the button. Those with fancy intertwined letters are sometimes puzzling to decode, but this can be accomplished by going through back issues of the *Official Guide, Poor's Manuals,* or old timetables. Sometimes, uniform buttons were stamped with the railroadman's occupation — Conductor, Brakeman, Porter, Agent, and so on. Still others were dual marked, with both the name of the railroad and the trainman's title; for example, "Conductor, StP&SCRR." These are scarcer and worth more.

Uniform buttons were also made for street railways, electric lines, express companies, Palace Car companies — in fact, virtually any form of transport involving a flanged wheel on an iron rail. Finally, not to be overlooked are railroadmen's work clothing buttons which are frequently embossed with locomotives and railroad-related names. It would take a lifetime's work to compile a complete list of uniform buttons of all U.S. railroads and transportation firms, so numerous were the various lines and buttons produced for them.

So, if you are looking for a railroadiana specialty with restricted space and a modest budget, you may just find collecting trainmen's uniform buttons to be your "cup of tea," keeping you involved in a rewarding hobby for years to come. Prices on them vary from $1 to $10, depending on scarcity, with buttons in good condition from long-defunct roads having the higher value. There's always the chance, too, of finding a rarity that could be worth $15 or more. A word of caution, though: in the past few years, some restrikes of uniform buttons have appeared on the market, so be wary of these.

Incidentally, buttons are by no means a recent invention — they date back to ancient times. The earliest ones were made from wood, bone, horn, ivory, gold and silver, and explorers have found them in Egyptian tombs, made of semi-precious stones. Buttons arrived in southern Europe as early as the 13th century, gradually evolving into the many varieties we know today. In the U.S., the manufacture of commercial brass buttons was introduced in Philadelphia about 1750. Soon afterward, the manufacture of metal buttons for uniforms began to proliferate in this country, and by the turn of the century some 200 button factories were in operation, turning out an immeasurable variety of sizes, shapes and materials.

For those who enjoy research, the history of button-making through the years is fascinating. Learning about them can make the hobby of collecting railroad uniform buttons that much more enjoyable. □

Buttons made for railroadmen's work clothing are frequently sought after by collectors. Many feature locomotives and other railroad-related designs.

On Track in the Diesel Age

with Jim Edmonston

It's early December 1978 as a northbound Illinois Central Gulf local crosses the bridge north of Watson, Ill. On the head end are GP-10 No. 8202 and, still in her original Gulf, Mobile & Ohio paint scheme, GP-30 No. 513. Photo by Burrell P. Spieth

NEW LIFE for some well-travelled F-7's! The Port Authority of Allegheny County (Pittsburgh, Pa.) has taken delivery of two completely rebuilt F-7's from General Electric in Hornell, N.Y. PAT Nos. 6690 and 6691 are veterans of the now-defunct Wellsville, Addison & Galeton shortline in north-central Pennsylvania. They were WAG Nos. 2200 and 2300, the last power on that road. Originally, these 1953 products of EMD were delivered as Southern Pacific No. 6443 and Texas & New Orleans No. 365. Traded to GE on new U-boats in 1968, they were refurbished and put back to work on the WAG along with a Western Pacific F-7 and a Southern Pacific F-7B.

Now, these two units have entered a whole new world. From heavy freight work in the deserts of the West, to plug locals in the cold forests of northern Pennsylvania, and now commuters in the heavily industrialized Monogahela Valley, these engines have seen it all! PAT commuter runs use the B&O from downtown Pittsburgh to Versailles, Pa., a distance of 18½ miles, through Braddock, Glenwood, McKeesport, and Eastern Suburbs.

B&O operated local passenger runs with Pacifics, then RDC's, finally GP's, until PAT took over the service. B&O GP-9's Nos. 6600, 04 and 05 will probably stay on as backups, but leased SEPTA RDC's Nos. 9170 and 9171 are expected to be relieved. The two F-7's have been upgraded to 1750 hp (same as the GP-9's) and are now model F-7Au, "u" meaning upgraded in horsepower. GE also is reworking cars to provide trains with head-end power (HEP) instead of old steam generated power. New colors are cream, brown and orange. Keep 'em clean, PAT!

A few hundred miles east of Pittsburgh, along the same B&O, more F-7's are back to work. Morrison-Knudsen, the big rebuilder at Boise, Idaho, took old B&O F-7's Nos. 4566, 4580, 4582, 4472 and 4557 and upgraded them to F-9 standards, raising horsepower to 1800, adding HEP power, and mounting a mighty, solid flat pilot built to resist telescoping. The frames are extended front and back to form a very heavy anti-climber. Colors are gray, black and orange; Maryland DOT numbers are 7181-85.

The last two rebuilt ex-B&O F-7's delivered to Maryland's DOT are seen at Amtrak's Ivy City Terminal in Washington, DC, Aug. 19, 1981. No. 7100 is a head end power car only; No. 7185 is designated an F9-PH. Photograph by Alex Mayes

:se locos :e used to haul commuters betwee :timore and Washing- one of the oldest passenger services on earth. B&O started it back in August, 1835, with Grasshoppers (upright boiler 0-4-0's), then used 4-2-0 "One-Armed Billies," then 4-4-0's, Atlantics, Pacifics, and whatever needed a test run out of Mt. Clare Shops in Baltimore. The Balto-Wash. local was the last steam run on the B&O in the East; a P-ld Pacific did the honors. Then it was GP-7's, RDC's, then GP-9's and RDC's. The passenger load got too heavy for the RDC's, so the trains got GP-9's regularly. Now, five new beauties enter the Washington scene!

Another commuter development, although temporary, finds Conrail lending a hand out of Pittsburgh to the Northeast. It seems that a major construction job on Parkway East, the main artery out of town, will cause a huge traffic jam. In an effort to relieve the situation, Pennsylvania DOT will operate a commuter train between Pittsburgh and Greensburg (Westmoreland County) using Conrail Geeps and Amtrak Heater cars with up to 10 Amtrak coaches. Trains started in March, 1981, and ran seven months this year, with another seven months slated for 1982 during the construction season (evidently no trains in deep winter).

LOCOMOTIVE HISTORIANS in Detroit, Toledo & Ironton's operating territory have two challenges: to get pictures of GP-38 No. 228 and GP-35 No. 355 while they are specially painted. I saw 228 on a northbound Cincinnati-Detroit train last May 29th. She was in Grand Trunk's blue and red scheme with the new stylized DT&I logo on her sides. No. 228 was formerly DT&I's red, white and blue Bi-Centennial unit. That came about because Grand Trunk Western—now operating DT&I, with a full takeover due in about a year—needed a freshly painted unit for a Dircector's Special. GP-35 No. 355 was chosen, and the shops at Jackson, Ohio, started repainting her from old DT&I orange and black. The work wasn't progressing quickly enough, so the Battle Creek shops seized Bi-Cen 228 (due for repainting anyway), and now there are two repaints. I haven't seen No. 355, but I'm assuming she looks the same. Why use DT&I logos when their days are numbered? Probably a legal technicality; at any rate, it makes for two very unique paint schemes.

By the way, lead unit on the freight I saw was GT GP-38 No. 5835 and the third unit was DT&I GP-38 No. 227 in original paint. DT&I runs trains to the Southern and L&N over Conrail tracks from Springfield, Ohio. Just what effect the new CSX system will have on DT&I-L&N traffic remains to be seen. This train from the Southern was mostly empties going home—DT&I auto parts boxes, auto racks, Canadian empties, etc., all headed for Detroit.

HAROLD BUCKLEY of Alexandria, Va., reports on the many changes in the Washington, D.C., scene. In addition to the new Morrison-Knudsen F-9PH's we mentioned earlier, M-K has a chop-nosed GP-9 with a Sulzer power plant, No. 5001, working on lease to Washington Terminal Co. WT still uses a small fleet of old Alco RS-1's, their original diesels, although the numbers are diminishing (No. 40 is the latest fatality). In addition, the Faur (Romanian) hydraulic No. 50 is in daily use as is an ex-Army Alco S-2. The old ex-Pennsy MP-54's that WT intended to use as a crew shuttle service from Union Station to Ivy City Terminal have been retired and replaced with two ex-Amtrak (nee New York Central) RDC's. Add to this varied roster the normal lineup of Amtrak E-60's, AEM-7's, Metroliners, F-40's, P-30's, and B&O's assorted Geeps and switchers, and Ivy City engine terminal can be a very interesting place.

Across the Potomac in northern Virginia is Potomac Yard, with B&O, Conrail, RF&P, Southern, C&O, and D&H freight power. Potomac Electric Power Co. (Pepco) has repaired and returned to service at least two *steam* 0-4-0t Fireless Cookers (steam storage locos). Also, Pepco has taken delivery of No. 5, an Alco S-2, ex-B&O No. 9036. She carries an unofficial "97" on her numberboards, but Pepco says she's No. 5. That engine went to work at the Alexandria plant. During the absence of the fireless cookers, Pepco leased Southern power—GP-30's and GP-9's.

The bad news from the area is the death of Auto-Train, which officially died last April 30. The GE U-36B's had been repossessed and the trains operated their

Curt Tillotson, Jr., 1207 College St., Oxford, NC 27565

A long 179-car N&W unit grain train was heading back empty from Norfolk, Va., to pick up another load of grain bound for Europe. SD-35 No. 1572 and two other SD's provided the power the day this photo was taken on April 16, 1978, at Crewe, Va.

final days with SCL power. One photo I have of a power set shows SCL No. 6620 and an RF&P GP-35. Auto-Train also had a couple of switchers; one was an old Baldwin. Where has the power gone? It seems that the GE's are good candidates for lease or resale.

THE WASHINGTON subway system, Metro, has established rail connections with B&O, RF&P, and Southern. Naturally, these are used to transfer supplies and, in cases of new construction, ballast trains. Southern Railway GP-35's have been seen hauling ballast trains on the Metro. This brings up an interesting possibility—will we someday see fan specials on the Metro using Southern's FP-7's? If you have ever been in Metro's cavernous underground transfer stations, you can imagine what it would be like to see C&O 4-8-4 No. 614 bringing in a special!

Speaking of C&O's 614, she was here in Cincinnati in early May, performing beautifully. We had heard dire predictions of her demise after problems in Florida, but she looked perfectly fine to us here.

A NEW CONTRACT between International Minerals & Chemical Co. and SCL, Clinchfield, C&O, and Canadian Pacific should be generating unit trains of phosphate rock moving between Florida and Port Maitland, Ontario. The contract was to go into effect Feb. 1 and last until April 30, 1986. Trains are to be no more than 65 cars loaded, and 58 to 72 cars empty. Seaboard will gather the cars from Noralyn, Brewster, and West Polk, Fla., and assemble trains. Unit trains then run to Spartanburg, S.C., where Clinchfield takes over, delivering the trains to C&O at Elkhorn City, Ky. C&O then moves them from Elkhorn City to Detroit, where they are transferred to the Canadian Pacific for delivery to Port Maitland. Of course, SCL-CRR-C&O is now one company —CSX Corp.

If this contract took effect as planned, these trains should be rolling right now, heading up the C&O through Ashland, Ky., Columbus, Ohio, Toledo, and Detroit. The cars, under terms of the contract, are to be IMCX cars or equipment leased by them, and I assume they are covered hoppers. I don't know what routes the returning empties would take; possibly if the C&O were jammed they'd run them down B&O's Toledo Divsision to Cincinnati and I'd see them. These trains look like the Grain Extras of a few years back. Have you seen one?

WE ARE WORRIED about Conrail here in Cincinnati. A message circulated among shippers told of the last CR piggyback operation in Cincinnati—now there is no more local piggyback service. Trains TV-17 and TV-18, old New York Central "hot" solid piggyback consists between Cincinnati-Cleveland, were down to five or six cars at the end. Riverside Yard, once a busy NYC engine terminal and freight complex, used only as a piggyback ramp in recent times, has been shut down. This lends credence to the persistent rumors that have been circulating to the effect that Conrail might pull out of Cincinnati completely. These rumors started when the CSX and N&W-Southern mergers became public. As I've said before, where would Conrail get any traffic if all North-South through freight dried up?

As the caboose of 1st 159 heads into the limits of Pomona Yard in Greensboro, NC, she is passed by Southern GP-38 No. 2795 bound for Potomac Yard on Oct. 29, 1977.

Robert Tillotson, Jr.

Conrail has sold four Alco C-425's to the Detroit & Mackinac, Nos. 5073, 5075, 5076 and 5078 which will be remanufactured by GE at Hornell, N.Y. They will be getting new 12-cyclindered, 251-C power plants to be rated at 2,000 hp, which technically makes them model C-425m (modified). This will keep the D&M's all-Alco roster intact. D&M numbers are 1280, 181, 281 and 381, which reads to me like months they expected delivery.

Conrail is down to one lonely E-8, No. 4022 (ex-Erie-Lackawanna 833), which has been upgraded to E-9 standards and is used on special assignments. One such special was an "inspection tour" by brass hats last winter, with coaches 2, 10 and 11. Niagara Junction E-10B electrics Nos. 4750, 4752 and 4753 have been overhauled and now work out of Harmon, N.Y., replacing S-2E electrics there.

Pittsburgh & Lake Erie has purchased "several" Rock Island GP-38's for use in the Pittsburgh area. Numbers will be 2058 and up; has anybody seen these as yet?

BURRELL SPEITH, PO Box 413, Centralia, Ill., is seeing immediate results of the BN-Frisco merger with re-numbered Frisco units coming in on BN trains, all models mixed indiscriminately. Burlington Northern No. 6040, an old ex-CB&Q SD-7, [illegible] chopped nose and new BN paint. SD-7's and SD-9's are the "common" power in Centralia; all are ex-CB&Q and all are now repainted BN. Chicago & Illinois Midland power gets in now and then on pool trains, usually SD-38-2's, but the chop-nosed SD-18's have been seen. Illinois Central Gulf has stored GP-9 No. 9006 in the Centralia roundhouse; she is the lowest numbered GP-9 still in the old black paint.

Power seen in the yard at Precision National Corp. in March included all six ICG Alco C-636's (Nos. 1100-1105) with stacks capped; that usually means not totally scrapped. Also seen: Southern SD-24's being reworked, BN F-units destined for parts supply, and Union Pacific E-units in immaculate condition—used only for Directors' Specials in recent years.

The BN-Frisco merger resulted in the longest run of any train over one railroad when a BN freight moved from Vancouver to Memphis, almost 4,000 miles. The merger was handled quickly as far as power goes; SLSF locos were scattered systemwide and most had been renumbered in the first three months. At the end of last January, BN showed 74 serviceable F units. The Seattle & North Coast RR took F's 610, 684, and 704 in Dec. '80.

BILL POLLARD, 413 Brahma, Conway, Ark., reports that the Little Rock & Western RR, which operates 30 miles of ex-Rock Island track between Little Rock and Perry, Arkansas, was using Green Bay & Western Alco RS-3's Nos. 305 and 307 in April, waiting for their two rebuilt GP-9's to arrive. This should have happened by the time you read this. LR&W operates daily in the morning, normally finishing up by 1 p.m., with one unit on the trains and another stationed at Perry to serve as a helper over Copperas Gap.

THE BROOKS[illegible]E Locomotive Works (Brookeville[illegible]) is still putting out their tiny units for specialty jobs in industry. Abitibi Northern Lumber Co. of Thunder Bay, Ontario, took delivery in March of a 15-ton unit. Joe Jack of Conway, Pa., spotted it moving through Conway Yard on a flatcar last March 8th.

WITH THE COAL STRIKE added to the generally poor economy as of this writing, all traffic is down and there were rows of stored power everywhere. Buckeye Yard in Columbus, Ohio, had at least 50 units in storage; primarily GE 4-axle power.

Peter Forbes, 1510 Pleasant Drive, Kokomo, Ind. 46901, was in Albany, N.Y., in April and saw "close to 250 units" (mostly GE) in storage there. Here in Cincinnati, we have a few switchers and older Geeps in storage, but no road units. On Chessie, however, there are two tracks full of GP-38's and 40's with stacks capped at Queensgate Yard, the result of no coal (or very little; some of the non-union mines on the L&N were still shipping). Union Pacific reportedly was storing close to 200 units. I suppose the same sad lines of dead locos were present on just about every major road while the strike lasted.

Still, new locos are always being delivered, some to be stored immediately. Union Pacific is still getting SD-40-2's, Soo Line got some GP-38-2's last February, Missouri Pacific got those GP-50's we mentioned last time, MKT has four new MP-15AC switchers, and Santa Fe got new SD-40-2's.

Those GP-50's are really selling well, with owners CNW, SR, MoPac, BN and ATSF totalling 190 units. Southern reordered and took delivery in May of 20 more. There are two new models as well. Southern Nos. 4600-4605 were delivered in Dec. 1980; they have 12 cylinders, 2600 hp. on B-B trucks and are called "GP-39X" as an introduction to new model GP-49. Simply stated, these are a 12-cylindered version of the GP-50, and look like them except for having two 48-inch fans over the radiator area instead of three.

The other new model is SD-50S, which is the same as an SD-50 but two feet shorter, hence the "S" designation. This will be a tough one to spot. New units are Norfolk & Western Nos. 6500-6505.

IN MEXICO, things are really popping. So many new, used and rebuilt locos are on N. de M. that the system is going for five-digit numbers. New units going there include B-23-7, C-30-7, M-424, and SD-40-2's, proving that Mexico is not mad at any diesel builder. Not only that, but Mexico is shoving a new electrification project of about 700 miles forward rapidly, with new electric locomotives reportedly on order for 1982. No idea who will build them as yet.

THE CHICAGO, SOUTH SHORE & South Bend, once all-electric, but recently (since Chessie acquisition) powered primarily with C&O GP-7's, took delivery in early 1981 of GP-38-2's Nos. 2000-2009. These will relieve all GP-7's and Little Joe electrics. Two of the Little Joes are museum-bound, one to Baltimore and the other to Union, Illinois.

SINCE THE MIGHTY CSX merger combining Chessie and the Family Lines, and the close-on-heels BN-Frisco takeover, can we imagine any more familiar names being eaten by the Merger Monster? How about Norfolk & Western-Southern into NWS Industries, to include Delaware & Hudson, which N&W owns, and possibly Illinois Terminal, which N&W is trying to get? Would you believe UP/MP/WP? This one is being hotly contested by Southern Pacific and a host of others. Santa Fe has already (last January) gotten control of the Toledo, Peoria & Western (300 miles in Illinois, Iowa and Indiana). This gets ATSF into Columbus, Ohio, via TP&W's trackage rights over Conrail; and it might herald bigger things. Personally, I think ATSF is getting into position to bid for a Conrail East-West mainline.

One fellow who would benefit from that is R. J. McKay (Mainline Mac), P.O. Box 487, Little River, Tex. 76554. Mac is a Santa Fe engineer working the Extra Board out of Temple, Texas. Some of the ATSF action he's seen includes unit coal and sulphur trains. ATSF No. 785 is a unit sulphur train running between Rustler Springs and Galveston, on which you'll find SD-26's (rebuilt SD-24's) running in slave unit operation, radio-controlled. This is a train of tank cars, and due to derailments over the past few years, few of the original yellow Duval Sulphur cars still run.

Another sulphur train is No. 625, which Temple crews take over at Brownwood and turn over to the Conroe District crews at Somerville. Power on this one is usually GP-40X, with GP-50's coming (all 3800's). This again is a slave unit operation. Unit coal train No. 4425 is a Santa Fe-SP pool train, coming out of Axial, Colo., and terminating at Coleto Creek, Texas. D&RGW brings the train out of Axial, turns it over to the Santa Fe at Pueblo, Colo., which again hands it to the SP at Caldwell, Texas, for the run to Coleto

Glenn Oestreich

A cold day in January 1981 sees Central Wisconsin Railway's 1946 vintage GE 70-tonner handling two covered hoppers of fertilizer through new-fallen snow between Palmyra and Whitewater, Wisc. The year-old shortline operates on an ex-Milwaukee Road branchline.

Creek. Santa Fe power here is usually SD-40-2. Cars are rotary-dump gondolas, blue ends being the rotary couplers. Loaded trains are run with slave units, empties going home are not.

Still another unit train, coal train 4615, comes off the Fort Worth & Denver (BN) at Fort Worth, and Santa Fe delivers it to Smithers Lake, Tex. Power is mostly BN SD-40-2's and U-33C's. All this power is on the head end as too many problems were cropping up with the slave units. However, there have been so many drawbar failures on this 14,000-ton train that slave operation may return. Speeds for this train are 45 mph for the loads and 55 for the empties, and that's moving the coal.

Mac says that the Santa Fe has finally got the CF-7 model up to the union specs for minimum standards of safety as regards fumes, cab wobble, bounce and noise. As you know, CF-7 is the model name Santa Fe gave to its rebuilt road-switcher-style locomotive which is basically an old F-7 road unit. Now, says Mac, rebuilt GP-7's, GP-9's, and CF-7's are getting new-style control stands and 26-L brake equipment.

The Belton Railroad of Belton, Texas, sold their Whitcomb 50-ton side-rod centercab to Dresser Industries of Nolansville, Tex., some time ago, although Mac has never seen the loco in service there. Dresser painted her orange and white. This is the unit pictured on page Misc-421 of the *Second Diesel Spotter's Guide.* Can anyone bring us up to date on her status? Belton RR now runs No. 504, an ex-TRRA (St. Louis) EMD SW-1 (600 hp), painted red.

THE U. S. ARMY at Fort Hood, Texas, uses two EMD SW-8's, Nos. 2010 and 2015, which are in use almost daily. Getting photos of Armed Services units on bases is really a tough nut; you either wait and catch the units as they interchange with a common carrier or, if the interchange is inside the base, you ask permission, which is almost impossible. I know—I was at Fort Knox in the early 'sixties, and I didn't join the Army to get photos of the two Alco S-2's they had.

There are still Baldwins in Texas, too. The Georgetown RR of Georgetown, Texas, owns four S-12's (all ex-MKT) and one DS-44-1000 which has been repowered with an EMD plant (ex-MKT No. 25). The Texas Crushed Stone Co. of Eureka, Tex., has No. 510, a DS-44-750 (ex-Tex-Mex) and No. 1000, an ancient VO-660 which started life as MoPac No. 4022.

Last April 27th, the southbound Amtrak *Inter-American* got all-new Superliner equipment (trains 21 and 23), with the northbound train getting new equipment the next day. A big day for Amtrak in Texas—no more E units and malfunctioning cars. But will the new train survive Administration budget cuts?

"How's she runnin'?" NYC F-3A No. 1619 (Type II side panels with chicken wire) leads GP-7 No. 7423 and a freight out of Sharonville, Ohio, in the late Sixties into an uncertain future.
Jim Edmonston collection

I APPRECIATED the comments of Robert Coltrane, P.O. Box 114, Sophia, N.C., concerning this column in the Vol. 1/No. 2 issue. Bob is right on the Southern F's being upgraded. Southern bought F-3's in large numbers after testing and accepting the FT from General Motors. Later, after the improved F-7 came out, SR found it economical to upgrade its existing F-3's instead of trading them in.

Externally, they are F-3's, but SR considers them F-7's in every way and so carried them on its roster. Really, the correct model designation should be F-3u, or upgraded F-3, but EMD never officially changed model numbers in this way. Anyway, Bob wants to see more info. on roads in the south in *Railroads Illustrated.* OK by me; all I need is some input from you southern railfans. I'd especially like some current news on the lesser-known lines and industries, such as Lancaster & Chester, Beaufort & Morehead, Atlanta & St. Andrews Bay, Durham & Southern, etc. How does your area feel about CSX? And what about the possible Norfolk & Western-Southern combination?

I SPENT A DAY with the family at Americana Amusement Park in LeSourdsville, Ohio, this past June. One of the m[illegible]ons there is the clos proximit[illegible] outside the gate) o[illegible] B&O's Middletown branch. This line runs off the Toledo Division main just north of Hamilton (New Miami), to the big Armco Steel plant in Middletown. The branch is used by both B&O and Armco trains. B&O's tonnage is coal, coke, and ore inbound, empties and steel coils outbound.

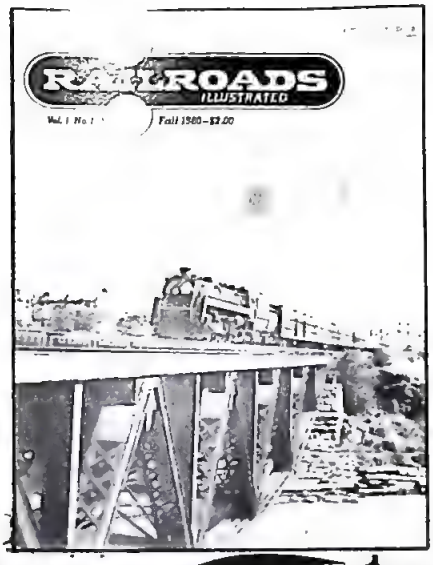
The Armco trains are hot metal trains, consisting of a locomotive, one to three giant Treadwell "Thermos Bottle" cars and a B&O caboose. Hot metal is loaded at the Hamilton plant and run to Middletown for casting. Empty trains run south. During the day, I've counted as many as six moves north and south by this train. The day I was there, EMD SW-1500 No. 703 (delivered in 10/72) was the power. These locos have replaced the Lima 1000 and 1200 hp switchers which Armco used on the trains for a decade or more.

Armco Steel of Middletown, by the way, was until just recently the largest operator of Limas. It has reportedly killed the last one, although there are still cannibalized hulks outside the shop. I will try to get a firm report on just when and which locomotive ran the last miles. When business turns up, maybe Limas will come out of storage again. Meanwhile, last May, two more new EMD 1001's arrived.

THE OHIO & INDIANA RR, which operates an ex-PC branch from Valley Junction to Brookeville, Ind., has reportedly bought U.S. Pipe & Foundry (Burlington, N.J.) No. 40, a Lima 750 hp, which started life as Cincinnati Union Terminal No. 20 and was sold to U.S. Pipe in 1958. If, indeed, No. 20 does "come home," she'll be operating close to her sister, No. 25, which runs on the Whitewater Valley Scenic Ry.—actually the western end of the same ex-PC branch line. Seems almost too much to ask that the two roads stage a big "homecoming" and couple the two rare birds in Metamora for the fans.

Finally, in a belated reply to a reader who wanted to know what the advantages of the Sulzer engine are, in a word: Economy. The Sulzer is a four-stroke plant, whereas EMD engines are two-stroke. Sulzer engines are big-bored plants, so much so that a 16-cylindered Sulzer can do the work of a 20-cylindered EMD. Also, a 12-cylindered Sulzer can outwork a 16-cylindered EMD. This, of course, relates to fuel economy: there have not as yet been any maintenance comparisons made public. Morrison-Knudsen, incidentally, is trying Sulzers on ATSF and Southern Pacific, with an eye toward replacing all the 20-cylindered 645 engines in those SD-45's. Will they? Time will tell.

Keep sending rail news to me at 821 Clearfield Lane, Cincinnati, Ohio 45240.



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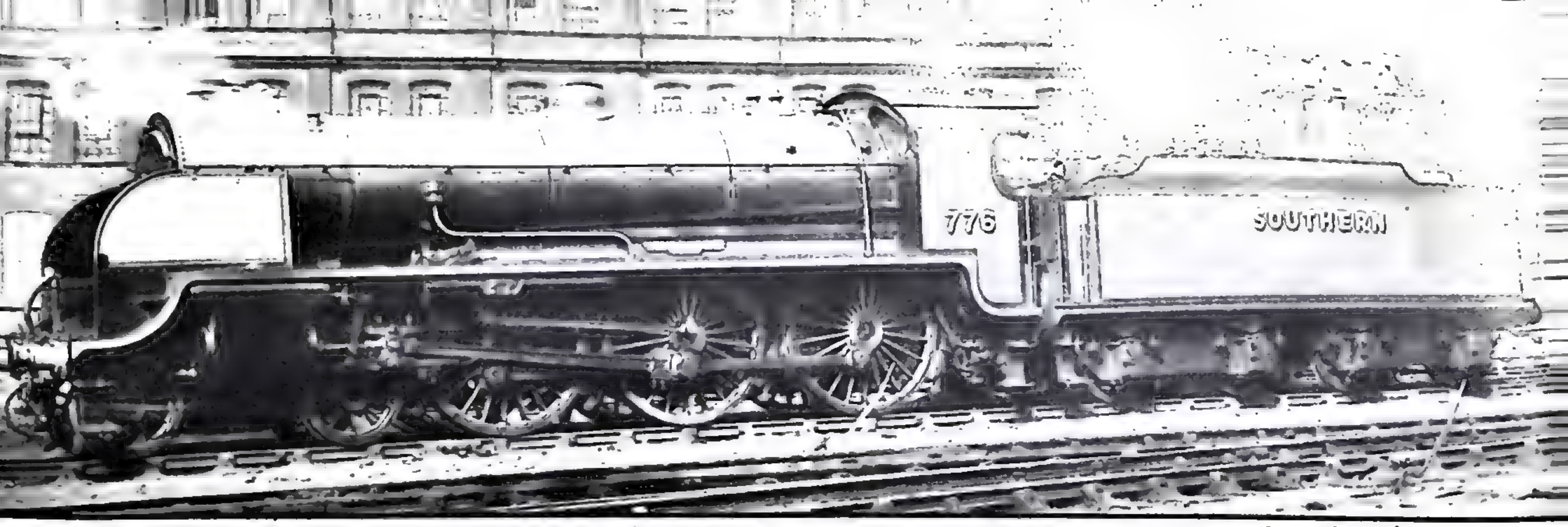


The clean lines of a King Arthur class 4-6-0, introduced in 1925, are seen near London's Victoria Station in the mid-1940's.
National Railway Museum, York, England

Test Your Railroad Knowledge

This issue's quiz is designed to test your knowledge on a variety of railroad subjects, mostly related to the days of steam. The final question, however, serves to check on how carefully you've read this issue. Some of the questions are tricky, so be careful. A score of 4-6 is respectable; 7-8, superior. If you score 9 or 10, you're a walking encyclopedia of rail facts. Answers are on page 33.

1. Practically everyone knows that the first transcontinental railroad in North America was completed in May 1869 at Promontory, Utah, but in what year was the first railway across Canada finished?
- a. 1863
- b. 1874
- c. 1885
- d. 1903

2. On what railroad was the first steam locomotive whistle introduced?
- a. Stockton & Darlington Ry.
- b. Baltimore & Ohio RR.
- c. Long Island Rail Road
- d. Leicester & Swannington Ry.

3. What is the difference between a fusee and a torpedo?
- a. A fusee is an audible signal placed on a rail; a torpedo is an explosive device used underwater in blasting tunnels
- b. A fusee emits a colored flare and is placed on the track; torpedoes are placed on the rail
- c. A fusee is shot from a flare gun; torpedoes are cylindrical devices placed on the track that emit smoke when lit
- d. Both words are synonymous

4. One of America's most famous passenger trains, the Lackawanna's *Phoebe Snow,* was named for a woman. Who was she in real life?
- a. The daughter-in-law of William H. Truesdale, president of the line
- b. She never existed
- c. The first female fireman on the Lackawanna
- d. Both (a) and (c)

5. How did the standard gauge of 4 feet 8½ inches come to be adopted?
- a. More or less by chance
- b. By an Act of Congress in 1847
- c. Experience showed that wheels adhered better to iron rails at that gauge
- d. At that width, early locomotives were more stable with a lower center of gravity

6. What is a crown sheet?
- a. A thin steel sheet on the top of a steam locomotive that covers the exposed boiler area behind the steam dome
- b. On a diesel locomotive, a small valve that controls the flow of fuel oil to the pistons
- c. On a steam locomotive, a curved metal plate that controls the air supply from the brake pipe to the auxiliary reservoir
- d. None of the above

7. Which railway pioneer patented the first four-cylinder compound locomotive?
- a. Matthias W. Baldwin
- b. George Westinghouse
- c. Samuel M. Vauclain
- d. Isambard Kingdom Brunel

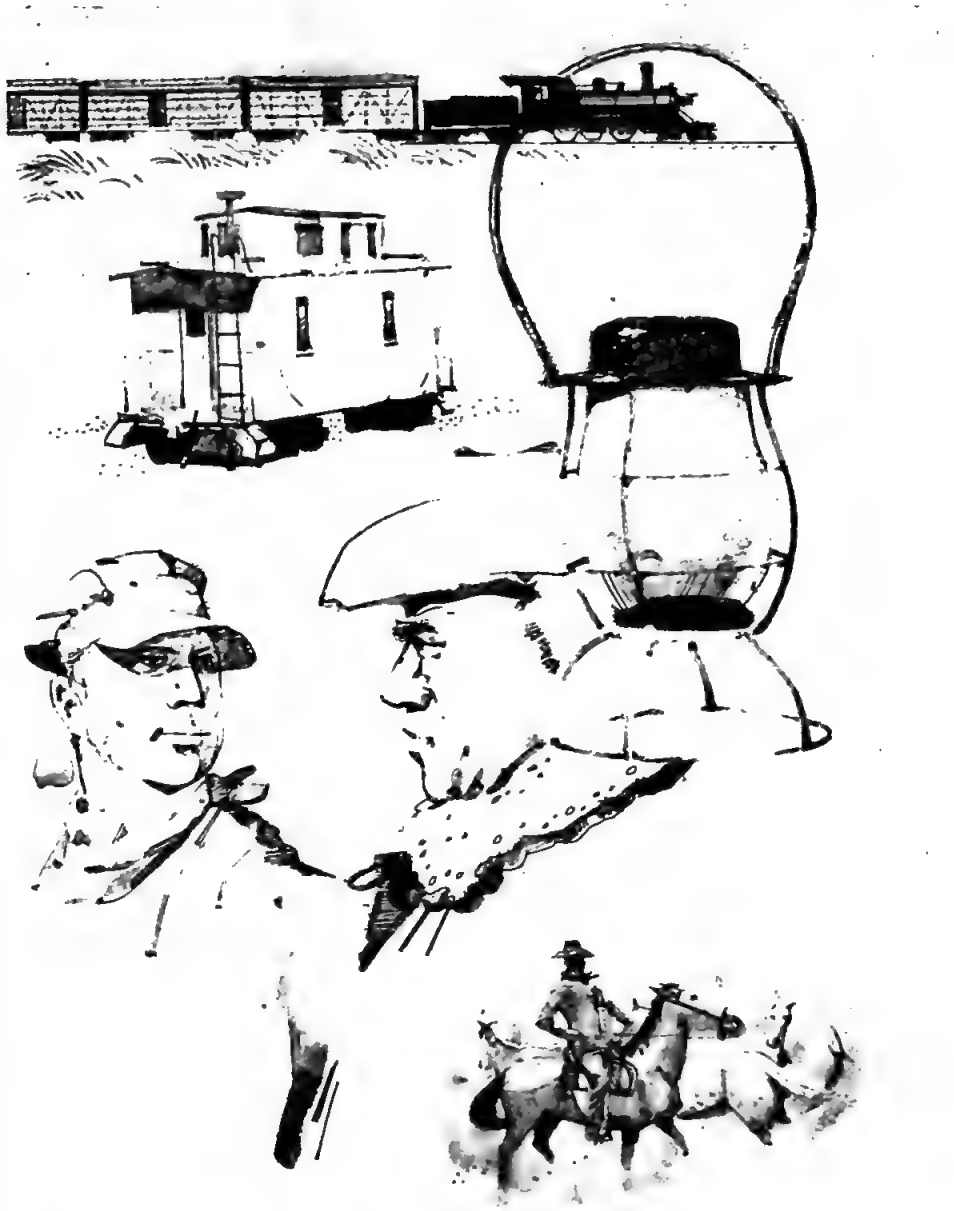
8. What is the origin of Union Pacific's shield emblem?
- a. It stemmed from a desire to deter train robbers by adopting an emblem suggestive of law and order
- b. An attempt to show a patriotic connection with the U.S. government
- c. The shield actually evolved from an ancient Sioux Indian symbol
- d. It was based on the heraldic device connoting determination and courage

9. In the latter part of 1981, the Escanaba & Lake Superior was deriving much of its revenue from:
- a. Hauling coal to paper plants
- b. Transporting taconite pellets from Groveland Mine
- c. Running steam excursions twice a week using big compound-articulated Mallets
- d. Serving as a bridge line between the Milwaukee Road and Conrail

Broke Couplers

by E. S. Dellinger

ILLUSTRATIONS BY HERB MOTT



Streaks of cold rain were slicing obliquely down through the cone of the oil headlight as Conductor Jess McElroy crossed the mainline ahead of the low-wheeled mountain engine and mounted the platform of his waycar standing alone on Track 1. Shaking the water off vigorously, he sauntered into the car. The place was clean as a well-kept kitchen. The floor was carefully swept, and delay and wheel reports, switch lists and message blanks were laid out neatly on his desk. A cheery fire burned in the coal stove, and the enticing aroma of coffee boiling in the granite pot filled the waycar.

His parlor brakeman was his only nephew, Bud McElroy. As the old man entered, he saw Bud down on his knees in front of a home-made bench pruning the wicks of three signal lanterns. Unlike the uncle, Bud was short, stocky, bow-legged, hot-tempered and full of talk. The youth glanced up and inquired:

"What's the dope for tonight, Unk?"

The skipper took time to run a broom straw through his pipe stem before replying.

"We run light to Big Pine. There we meet three extra freights coming down the mountain, take on two helper engines, load sixteen cars of spotted gold and haul them over the hill to Saladin."

The cars of "spotted gold" were sixteen cars of palomino ponies loading out from his father's ranch far up in a canyon. Bud snapped the lids shut on the lanterns, set the red one beside the rear door, placed the other two on the cupola floor, and rubbed his hands vigorously with a big piece of white waste.

"That's just what I figured when I seen this crummy setting here by itself," he griped. "Why in hell can't this knucklehead outfit give us a coal drag and call another crew to handle those damn horses?"

The skipper smiled. "When crews work first in, first out, of a railroad terminal, luck usually decides what trains each crew shall handle."

Bud flung his waste into the stove and kicked the door shut. There was no use trying to get an argument out of Uncle Jess, who reckoned life was too short to spend it condemning other people. Bud read the orders and hooked them under the cupola window. The head brakeman coupled the engine on, lined the switch and let them out into the main, and they went chuttering away to Big Pine.

While his two young shacks faced each other in the left cab window, chatting of girls and football and trainsmen's rights, the O.R.C. stretched out on the other side, puffing thoughtfully on his ancient cob pipe, and let his mind wander back over the trail of years which he and his brother, Palomino Jim, had trod together.

There were boyhood trails through the Kentucky hills when they had dreamed of wealth and fame. And manhood trails when Jess went railroading and helped Jim to gain a foothold in the lush green grass of Palomino Valley and dot the slopes with painted ponies. The first break in their trail had come when Jess had refused his brother's offer to quit the road and join him in the venture which was making him the Palomino King. The break was soon mended, and life continued as before, with Jess going up at intervals to fish and hunt and watch Jim's boy grow into manhood.

Misunderstanding had come the night after Bud hired out braking on the mountain run. The recriminations of that night still rankled. Palomino Jim had accused him of enticing the boy away from home, and neither his own statement nor that of the trainmaster had convinced him that Bud went to the office alone and started railroading over Jess's protest.

Standing there in the dingy little room in Saladin, Jim had denounced them both, and ordered them never to set foot on the ranch again. Jess was still thinking about that night when the engineer pulled up and stopped in front of the Big Pine office. Before he could slip into his rain togs and get out of the caboose, Palomino Jim came bolting in.

The rancher stood a full head taller than his brakeman son and even topped the six feet and an inch of his lean conductor brother. Jim was ruddy-faced, thick-necked, wide-shouldered, and big in the middle. He wore a white Stetson, a yellow slicker over a plaid mackinaw and flannel shirt. His tan breeches were tucked into the tops of a pair of fancy cowboy boots made by a high-priced cobbler in Denver. There were pouches under his eyes which had not appeared four years ago when he and Jess

had last hunted deer.

He stopped short when he saw Bud and Jess and knew whose waycar he had entered.

"You again!" he snorted. "Don't this Western Central Railroad have another crew they could haul my stock out of here with?"

"They've got sixteen of them, if I can count," his son flashed hotly.

"Well, they'd better get one of 'em up here if they expect to load my stock in their cars! I don't aim to ride this caboose with you tonight, and neither this railroad company nor anybody else can make me."

"You don't have to ride the caboose," Bud retorted quietly. "There'll be sixteen cars of friendly palomino ponies ahead of it when we get loaded. You can crawl into one of them."

Bud's father turned white around the mouth. "I'm gonna wire that dispatcher to send me another crew, and I won't load a hoof until they do."

Jess had heard enough bickering. He warned his brother in a friendly tone:

"You'd better not, Jim. You may be a big man on Palomino Ranch, but on this pike you're just another customer. Officials run these trains with whatever crews are available, and neither you nor anybody else can change their custom."

The rancher said nothing, and Jess went on: "It's raining out there. Your horses are cold and wet. Let's line up the cars and get them into shelter. If you feel the same way about Bud an' me next fall, tell the officials beforehand and they'll furnish you with another crew."

Palomino Jim relaxed. He set his alligator bag on the seat cushion and went away to supervise the loading. The night was growing colder. A sharp wind swept down from the heights. Rain had slackened from a downpour to a windblown drizzle. The horses were pawing and whinnying restlessly in the sloppy pens.

Conductor and brakeman went out to check their train. Seven cars were ancient non-air relics without even so much as a pipe beneath them. They had been set out haphazardly among the air cars so the crew would have to pull the track and switch them together on the rear end before they could commence loading.

Rules, even then, required that every freight train leaving its initial terminal must have operating air-brakes on at least seventy-five percent of its cars. Nine cars were certainly not seventy-five percent of sixteen; so, before touching them, Jess went into the office and made the dispatcher give him a message to clear his own record in case of accident.

This delay and the switching required half an hour. It was nearly nine o'clock when they had pulled the string together in the upper end of the stock track. The trainmen cut them off one by one and let them roll down to the chutes. Palomino Jim and his ranch hands separated the herd into carlots and drove them into the slatted cars. It was nearly midnight when they had finished and coupled into the waycar.

Three extra freights had now come down the mountain and gone on into Gunther. The two helper engines were waiting in front of the office ready to couple on and shove them up the hill. At the last minute, the operator handed Jess a message from the dispatcher to take three empty flatcars over to Saladin.

"Tell him I've got a stock train," Jess protested quickly.

The op clicked off the message. Hot wires brought back a reply.

"He says to tell you to pick up them cars and get the hell outa here. The coal drag behind you's got full tonnage."

The brass pounder laughed and so did Jess. The latter picked up the empty flats and put them into his train right ahead of the horses.

The Western Central was, and still is, a mountain railroad. The single track enters narrow Gunther Gorge a few hundred yards east of Big Pine switch and climbs two thousand feet in 11.6 miles. Sixteen loads of horses and three empty flats was three-engine tonnage. Because wrecks had been caused by rear cars breaking off trains and plunging back down the grade before their riders could get them under control, the brass hats now required one helper engine to be coupled on behind the caboose and used as a pusher to Spruce Grove, where the track came out of the gorge and the grade eased off to less than two percent.

That's the way they arranged their power—two little engines pulling ahead, one shoving behind the caboose. Bud made a pot of fresh coffee, swilled a cup of it himself, and started out to ride the tops. Jess called him back.

"No use decoratin' here tonight," he said. "Ride the doghouse into Spruce Grove. If we break in two we'll both hit the tops and tie them down."

Bud crawled into the cupola, laid a brake club in the seat beside him, and set his lantern between his feet. They had all come in wet and chilly from the loading. Palomino Jim was sitting on the bunk with his chin up, staring at a picture of a striptease girl on the wall behind the stove. Jess poured two cups of coffee. After finishing the Java, the men lit their pipes. Outside, the staccato beat of the exhaust kept time to the clack of wheels and the creak and strain of timbers. Smoke grew thick in the waycar, and the two estranged brothers squinted at each other through the fog.

Jess wondered if now wouldn't be a good time to patch up the old quarrel. He ventured a cautious comment about Bud's being a whiz at looking after the hind end of a train, and that Bud would probably be promoted to conductor by next fall.

"Conductor, hell!" Jim exploded. "He could have been a millionaire by the time he's forty if he'd had sense enough to stay home and help me run the ranch."

"Bud didn't want to be a millionaire," Jess [illegible]tly. "Bud wanted to be a railro[illegible]idn't wheedle him, Jim. Nobody [illegible]e'd seen a few trains and heard the whistles talking to each other in the night. He wanted to live and work around them."

They argued for five miles, but they didn't quarrel—Jess saw to that. The rancher said he couldn't understand why any boy would waste his life riding herd on trains.

"I can't understand it either, Jim," the conductor admitted, "but there's something about railroads that draws you like a magnet. The work is hard and dirty. We never know when we start out on a trip whether we'll walk back on our feet or be carried home in a cracker box; still, there's some force keeps us going on and on. I don't know what it is, but I can feel it."

The two men lapsed into silence then and finished their pipes. Jim pulled off his fancy boots and lay down on the bunk. He was soon sound asleep. After covering him with one of Bud's blankets, Jess joined his brakeman in the cupola. They watched their train as it wound slowly around the curves climbing toward the Great Divide.

The reek of rain-soaked horses came down from the cars. At their backs the pusher engine kept up her incessant *whamm-whamm-whamm*, which changed at intervals to a blatant roar as the wheels slipped and spun idly on the slippery rail. Even before the climb to the canyon's rim, the drizzle had changed to a soft wet snow spattering against the windows. When they emerged from the gorge and stopped at Spruce Grove, the dark green trees were transformed into cones of feathery white and the ground was completely covered.

Spruce Grove had a telegraph office, a water tank, a coal chute and a wye; storage tracks lay at the western verge of the parkland which hung like a saddle over the backbone of the continent. The tracks came up to it on a grade of nearly four percent, levelled off for three hundred feet, and climbed the remaining six miles to the crest on a grade of less than two.

Their train being well under two-engine tonnage for the remaining climb, the pusher cut off and returned to Big Pine to help the coal drag which had followed them out of Gunther. The other two locomotives took coal and water. Jess went into the office. His nephew set the brakes on the caboose and three stock cars and inspected his train. Palomino Jim did not go out to see about his ponies. He had been dead to the world when they had pulled in and stopped. He turned over, drew the blanket more closely about his shoulders, and went on pounding his ear.

The skipper didn't stand around the office that night swapping wisdom with the equally lean and good-natured brass pounder. Like many other railroaders, he believed in hunches. An inner voice had been talking to him all the way up the hill, telling him that he was hauling too many non-air cars and warning him to keep both eyes on them. Jess knew, of course, that

Bud was looking them in siding and that if they should break away on the line, the men with clubs could easily control them. Still, he didn't want to stay too long out of the waycar.

He came out and stood in the snow on the board platform with the big, soft flakes wetting his face. He peered ahead. Torches flared on the ground beside the feet of two little engines from whose pops wisps of white steam were spiralling up to disappear among the white flakes swirling down. He looked back toward the west, where the marker on his waycar was barely visible and started walking toward it.

Bud was cooking. He had fried three slices of ham; but Palomino Jim didn't wake up, so he put one aside, ate his own and went out to let off the brakes when the engineer whistled a highball. Armed with a brake club, Bud took his station on the fourth car ahead of the caboose. That's where the mountain brakemen usually rode when there were non-air cars on the rear. In fair weather or foul, they stayed on the decks ready to start winding brake wheels if a string of cars should break away and change direction.

Jess McElroy, watching through the side window, could see his nephew's light gleaming through the snow. The track was slick and the snow kept forming little mountain ridges on the rail. When the train ran off the level stretch of the station layout and started nosing up the grade, the drivers slipped and spun idly on the snowy iron.

Jess placed his club and lantern within easy reach, then he opened the window wide, momentarily expecting a drawbar to give way and turn a cut of cars loose to seek a lower level. The break came when they were less than a half-mile above Spruce Grove. One moment he heard the steady rhythmic beat of two exhausts working first alternately and then in unison. The next there came a tortured blare as drivers lost traction and spun in the soft wet snow.

Up in the cabs, the eagle-eyes worked sand and throttle. Two engines leaped ahead, taking the slack out of loose couplers. Jess heard the splinter of wood and the creak of rusty iron as a weak one parted.

The slack ran in. The locomotive whistle started the three long blasts of the broke-in-two. Before the first one ended, Jess had left the cupola, taking club and lantern with him, and was twirling the brake wheel on the back platform. The caboose rolled back a foot or two and brought up tight against its creaking drawbar.

Jim dashed out in his stocking feet. He was chattering: "What is it, Jess? What's the matter?"

"Pulled a drawbar," the skipper drawled. "Some hoghead pulls one every night lettin' his drivers slip on this here mountain."

His apprehension lulled by the conductor's calmness, the rancher went inside and put on his boots. Jess set the brake tight and stood for a little while on the platform listening. He did not know where the break was; but because there had evidently been enough emergency air brakes behind it to hold themselves and the non-air cars, he assumed it must be well up toward the head end. Cautioning Palomino Jim to stay awake and be ready to lope off if the train should start rolling back, he struck out for the head end to investigate.

He met Bud coming back setting brakes, and warned him to look out for the rear end.

"You tie down these seven non-airs," he ordered. "Then bleed the air off the next four cars and tie them down. We don't want to take a chance on this train getting away from us."

He trusted Bud implicitly. When he told Bud to do a thing, it was as good as done. He walked toward the engine. There was no use getting excited over a broken coupler—the rest of the crew were certainly not excited.

When he arrived at the rear end of the head flatcar, he found the head brakeman and both engineers there with two torches and a lantern squirting tobacco juice into a jumbled mass of broken drawbar, cross member, bolts, nuts, springs and washers which had pulled out of the head end of the one behind it and had fallen into the track. Taking charge of the situation, Jess helped them to clean the debris off the track, assisted the head brakeman in digging a big chain out of an engine locker, tied the second car to the one ahead of it, and took it up to the top of the hill. He was gone an hour.

Bud stayed with the train. He obeyed instructions to the letter. He anchored his train securely with sufficient brakes to hold it against any ordinary shock, and since no trains were coming behind him for an hour to be flagged, he went into the waycar to thaw out.

His father was not there. The old rancher had taken a lantern and gone out to see how his horses were getting along. He was not as spry as his young son or his older brother, neither did he understand as well as they the use of all the gadgets on a freight car. He did not know, for instance, that if he should accidentally kick an angle-cock with the heel of a hand-tailored boot, in climbing over a coupler, he might close the train line and leave the cars behind it without brakes.

Palomino Jim trudged up one side of the train. The ponies were taking life easy and none of them were down. He crossed the coupling behind the second car of horses, cussing when the little gadget he stepped on turned and almost spilled him head first

The Railroad in Literature

Thomas Wolfe
(1900-1938)

The train had hurtled like a projectile through its tube beneath the Hudson River to emerge in the dazzling sunlight of a September afternoon, and now it was racing across the flat desolation of the Jersey meadows. George sat by the window and saw the smoldering dumps, the bogs, the blackened factories slide past, and felt that one of the most wonderful things in the world is the experience of being on a train. It is so different from watching a train go by. To anyone outside, a speeding train is a thunderbolt of driving rods, a hot hiss of steam, a blurred flash of coaches, a wall of movement and of noise, a shriek, a wail, and then just emptiness and absence, with a feeling of "There goes everybody!" without knowing who anybody is . . . But if one is *inside* the train, everything is different. The train itself is a miracle of man's handiwork, and everything about it is eloquent of human purpose and direction. One feels the brakes go on when the train is coming to a river, and one knows that the old gloved hand of cunning is at the throttle. One's own sense of manhood and of mastery is heightened by being on a train . . . One observes all the other passengers with lively interest, and feels that he has known them forever. In the morning most of them will be gone out of his life; some will drop out silently at night through the dark, drugged snoring of the sleepers; but now all are caught upon the wing and held for a moment in the peculiar intimacy of this pullman car which has become their common home for a night . . .

Perhaps this is our strange and haunting paradox here in America—that we are fixed and certain only when we are in movement.

—*You Can't Go Home Again*, 1940

This issue's quotation was submitted by Roy M. Neal and the Hon. Congressman Albert Gore, Jr. (D. Tenn.), 1131 Longworth Office Bldg., Washington, D.C. 20515. Readers are encouraged to submit quotations for possible use in this department.

into the snow. Then he returned to the caboose.

After putting away the lantern, he ate the slice of ham which Bud set out for him. He didn't say a word while he was eating it; but after he had finished, he pushed back the tin plate, halfway looked at his son and mumbled:

"Is there any coffee left in that pot?"

Bud leaned over to pour a cup, but the pot was dry. He didn't have time to make any because right then he heard the engine whistle as she came backing down the grade. Grabbing his club and lantern, the youth struck out for the middle of the train to be ready to let off brakes as soon as the engineer gave the signal.

Jess got off the tank when they stopped to pick up the red light out of the track. There were brakes set on the rear of the train which must be let off by hand before they could start the train. He remembered the seven non-air cars back; by all means, there should be two men on them when they started to leave. So he told the head brakeman:

"You make this coupling and test the air. Be sure it goes through all the cars when you cut it in. I'll go back and help Bud let off the brakes."

Trainmen didn't test air at the turn of the century the way they test it now after an engine has been cut off. They didn't take time to have the hoghead apply his brakes, walk the tops to see that the brakes were set, and retrace their steps to see that they all turned loose. This brakeman's test consisted only of walking along beside the cars and jerking the bleed-cocks to see whether or not there was air in the cylinders.

The fellow was different from Bud. He believed he had learned more about railroading in thirteen months than any old moss-grown, lantern-jawed conductor could teach him in a lifetime. He coupled the air hose, cut in the air, and listened to it running back into the car behind: then he walked back a little way, jerking the bleed-cock on each car as he passed it.

Thus he "tested" the flat and five stock cars, and did not go back to the sixth. He didn't stop to think that the air hissing out of those cylinders might have been old air which had remained in them while the locomotive was cut off. He assumed it was fresh air, pumped in from the engine since he had made the coupling. When he came in sight of the waycar marker, the brakeman stopped, pulled his earflaps down, turned his coat collar up to meet them, and waited there for the highball. He didn't wait long. Air pressure came up quickly, because the pump was filling only three cars instead of a whole train.

The quick rise in pressure should have warned the engineer, but his mind centered on something else. When the needle pointed to 70 he whistled "off brakes." Jess was handling the ones on the four rear cars and the caboose. Bud was looking after the others and worked rapidly back from the head of the cut. After releasing the brake on his four stock cars, Jess stood on the back platform watching Bud's light. When it stopped, he gave a highball. Bud repeated it. The head brakeman passed it, and struck out on a run for the engine so he could crawl up into the cab before they started moving.

Jess had not let off the waycar brake yet. By holding it set until the last possible second, he could give his engineer an anchor when he rammed the train back against it to take the slack. He kicked off the dog and thrust his club into the wheel for a quick release at the right moment. The engineer whistled off. Jess knew that right then he was throwing his reverse into backward motion to take the slack. He gripped his club tight and waited.

Cars rolled back against the caboose

and shoved it slowly down the hill. Engineers horsed Johnson bars into forward corners and worked sand and steam. Jess heard the slack going out away up toward the head end, but it didn't follow on down the hill. The rear end did not budge. The train acted as if there were air brakes sticking.

Into the night Jess muttered: "You hog maulers had better pump 'em off before you try to start. You'll fool around here and yank out another drawbar."

But the conductor could not see the air gauge and there was no air in his caboose. He didn't know that up there the needle showed brakes at full release, nor that the only sticking brakes were two behind four on the head end that didn't have any pipe connections with the engine. Johnson bars moved again. The old skipper imagined he could hear the hoggers cursing as they tugg[illegible] trying to horse them over. [illegible] he gave one short pant in backward motion. Train and waycar rolled six or eight feet down the hill. There should be plenty of slack in the rear end now, for the conductor was holding the waycar brake tight almost to the point of skidding.

Again the runners whistled off and put the reverse levers into forward corners. Each engine gave two or three violent coughs and stopped. Jess didn't release the brake, because there was no slack going out ahead of him. Instead, the caboose was creeping slowly backward, and an instant later the three long blasts of a broke-in-two were ringing again through the eddying snow.

The wheels moved a little faster, jostling and jiggling the brake-beams as the wheels turned around. Jess was startled. For a brief moment he did not realize what had happened. If the train had pulled in two near the head end, the break was back among the non-air cars; the caboose brake should almost hold them. Still wondering, the O.R.C. set the caboose brake and kicked the dog in place to hold it.

Jim had been lying down on the bunk, but had not been asleep. He came to the door at once and wanted to know again what had gone wrong. The conductor wasted no time.

"We've pulled another drawbar," Jess answered tensely. "You'd better grab your grip and get off here. We may be in trouble."

"You don't mean your train's getting away from you?"

"It has happened, brother," the lean old skipper flung back as he hurried through the waycar on his way to the roofs. "I don't like the way these cars are rolling. You get off and stay here till we see what's happened."

Jess hurried out through the front door and scaled the end ladder to the hurricane deck. He saw Bud's light in the snow—it appeared to be about six cars away. He set one brake, but it didn't seem to do much good, for cars with no brakes on them do not stand still on a two-percent grade. These were gaining headway fast.

The old-timer hurried ahead and tied down another one. His anxiety was increasing. If the non-air cars had broken loose alone, Bud's light should now be coming toward him. Instead, it was drifting farther away. Evidently some of the cars which had had air in them had broken loose with the others, but for some reason their air was not working. He did not know why.

He took the next car at a string-halted run. He was setting its brake when it ran through the upper switch at Spruce Grove. He knew by the way Bud's light kept receding that their whole train, or most of it, was loose on the hill. The cars lost speed as they ran through the level stretch between the Spruce Grove switches. If there had been a thousand feet of it, they could

ha[illegible]topped th[illegible]n and held it. But the[illegible]asn't. Be[illegible]the forward cars had qui[illegible]loving down the two-percent grade abo[illegible]e the caboose and the rear ones were spilling off the flat down the four-percent grade, dragging the others after them.

Jess was setting the fifth brake when the car he rode reeled drunkenly and, turning the sharp curve at the top, careened down the mountain. The next brake was set. He took up the slack in it and hurried on until he met Bud coming back.

"What went wrong up there?" he queried.

"I don't know," his nephew muttered. "Maybe the head brakeman failed to cut in the air. Maybe my father kicked an angle-cock shut when he was fooling around the train. All I know is there was some air-brakes set up close to the head end when the hogheads tried to start it, but they turned loose when we broke in two. There's not a brake holding on the train now—except the hand ones, and they don't seem to be doin' much good."

Jess asked how many cars there were in the cut. The reply came:

"Fourteen, I think. No, there's seven non-airs: four I bled off when we broke in two, and three ahead of 'em. Fourteen and the caboose makes fifteen."

Both men knew exactly what they were up against. In the early days, trains had carried a brakeman for each five cars with hand-brakes kept up in perfect working order. When fifteen cars with no air and with only two men rolled over the rim at twelve miles an hour and spilled down the slopping rail covered with soft snow, the odds were against the men.

The canyon was littered with rusty scrap iron accumulated there from just such setups; and headstones in the Gunther graveyard marked the spot for men who had been fool enough to stay and try to stop them.

Bud looked over the roof at white ground that was skimming by too fast, much too fast. "Where's Dad?" he queried.

"I told him to get off back there where we broke in two," Jess answered.

"Did he do it?"

"I *hope* he did."

Plenty of good men would have joined the birds then and there. They both thought of that, but neither mentioned it. Bud thrust his chin into the spokes of the nearest wheel and tightened it three notches. The wheels quit rolling; the car slid like a sled on runners, and a gentle hiss came up from the track below.

"Watch 'em, kid," the skipper warned. "Don't screw 'em too tight."

Bud unwound the brake so the wheels would roll. In stolid silence, they separated. Bud went up the train. Jess went down, listening to the sound of the wheels as he walked along. If they rolled too free, he tightened the brake; if they slid on the rail, he gave it slack.

Flanges squealed ominously on the curves. The scream grew louder and higher pitched as their speed increased almost imperceptibly. Jess worked down to the caboose and back till he met Bud again. They were certainly rolling faster than they had been two miles back.

"It looks like they're hell an' gone," Bud said in a hollow voice.

"There's only one chance," Jess told him. "If we can stay with them and keep 'em from rolling out till they run off the snow, we may stop them."

"Yeah, if they don't smack that coal drag coming up behind us."

The car they rode took a sharp curve where the track cut through a shoulder of rocks at a turn in the canyon wall. It heeled over until Jess imagined he could feel the wheels raise up and jostle back. He looked for a place to jump, but there wasn't any. When the car came out of the cut with one corner skimming the ballast, a high wall rose on one side, with a three-hundred-foot drop on the other. It righted itself and sailed on and the others followed.

"That was close," he said tightly. "Maybe we'd better look for a spot and—"

He didn't finish what he had started to say. A frightened palomino right under his feet whinnied piteously. It was answered by others.

Bud gripped his club and strode forward to see if he could take a notch on the brakes and keep them on the iron. Jess turned back, using his club like a man in a trance. The next two miles seemed like a million. Flanges squealed and cars rocked crazily. Every time they took a curve, Jess expected to see a car go reeling off into space or slough into a canyon wall and pile the rest up behind it.

Four miles from the rim, the cars were no longer gaining. The wheels ran so hot that they were melting the snow as the first ones crossed it, and drying the track as the rest rolled down. The speed fell off a little. Bud and his uncle kept working the brakes. The scream of wheels was softened. The palominos rode in silence. Six miles from where they had broken off, the cars rolled to a stop. The men had won!

When the last wheel quit turning, Jess led the way back to the caboose. He stepped aside and let Bud go through the window ahead of him. As his big feet hit the floor, Bud called back to his uncle, who was close behind: "These cars sure got good brakes on them."

"Looks to me like they've got good brakemen, too," said a strange-sounding voice which came out of the corner where Palomino Jim was standing behind the stove.

"You still on here?" Jess growled.

"It sure ain't my ghost, brother," the rancher answered.

"I thought I told you to get off back there at the Grove."

"And leave you and Bud here riskin' your necks to save my Palominos?"

"But there wasn't a cock-eyed thing you could do. You couldn't set a brake. Why, you couldn't even—"

"I could make a pot of fresh coffee," Jim interrupted.

"Has it boiled yet?" Bud asked.

"It sure has."

"Then, for gosh sake, Dad, pour me out a cup. I need it to stop my knees from knocking the hide off of each other."

Bud sipped the beverage and said it was good.

"I always did make good coffee," his father boasted.

The faint and far-off *whamm-whamm-whamm* of a laboring exhaust came drifting up the snow-covered gorge. Bud set down his coffee and listened.

"It's that coal drag comin' up the mountain," he reckoned, wise in the ways of the talking rail. "I've got to grab me a red one and go back there and flag him down."

He picked up a crimson light and a white one and darted out through the rear door. His father looked after him and sighed. Jess poured another cup of Java for himself and one for Jim, and they sipped them in understanding silence.

Answers to page 28

1. (c) The Eastern and Western sections of the Canadian Pacific were joined in a spike-driving ceremony at Craigellachie in British Columbia's Eagle Pass in November 1885.

2. (d) In May 1833 a whistle was fitted to an engine on this British road after a grade-crossing accident. A steam whistle was placed on an LIRR engine in 1836, possibly the first so equipped in the U.S.

3. (b) Both devices guard against rear-end collisions. The first recorded use of a torpedo was during the Civil War.

4. (b) The name Phoebe Snow was a product of the imagination of the Delaware, Lackawanna & Western's publicity department.

5. (a) There were no technical reasons for selecting this width. Ancient Roman chariots in England were said to have had such a clearance between wheels, a convention followed there by most pre-railway horse-drawn coaches and carts. (d) was true for Brunel's 7-foot gauge.

6. (d) It is a heavy sheeting forming the roof of the firebox.

7. (c) In 1889 Vauclain took out a patent for this type of engine; they were built shortly thereafter at Baldwin Locomotive Works' Philadelphia plant.

8. (b) One of the reasons advanced for building the UP was that it would help unify the nation. In the 1880's a UP vice-president asked an Omaha passenger agent, E.L. Lomax, to devise an emblem that had a patriotic connotation. The result was a slightly more elaborate version of the present UP shield.

9. (a) See page 14.

Railroad Reviews

by Albert Herskovits

Encyclopedia of
North American Railroading
Freeman Hubbard
378 pages, 9x11¼", hardcover, $39.95
McGraw-Hill Book Company, 1981

Few men were as qualified as the late Freeman Hubbard in even attempting to undertake the daunting task of compiling an encyclopedia spanning 150 years of U.S. and Canadian railroading. Fortunately, Hubbard's fifty-year career as a railroad historian—of which this book is the culmination—provided him with the range of knowledge and perspective so necessary for a work of this sort.

The result is a highly readable book containing several hundred articles, alphabetically arranged, on all manner of railroad subjects. These include entries you would expect, such as individual railroad companies and locomotive builders, stations, famous individuals, and technical subjects (the articles on diesel-electric and diesel-hydraulic locos were written by this magazine's contributing editor, Jim Edmonston). But also discussed are topics not easily found elsewhere, such as boarding houses, trains named for women, the longest railroad receivership, and the first organized railroad strike.

Although leaning more toward railroad history and folklore, the encyclopedia is well-balanced and up-to-date, including entries, for example, on the latest computerized freight car identification systems (mercifully explained in a way non-scientific readers will understand). The format is two columns to a page with numerous black-and-white photos and illustrations. An excellent idea, we thought, is the inclusion of a brief bibliography at the end of many articles; this will enable those interested to conduct further research on their own.

While the strictly technically-oriented might find less detail than they may have wished, those who relish railroad history and its contribution to our civilization will find this an invaluable reference work. As the author explained the *raison d'être* for the book in the preface, "There was no liberal education [of railroading] . . . compressed into one big reference book."

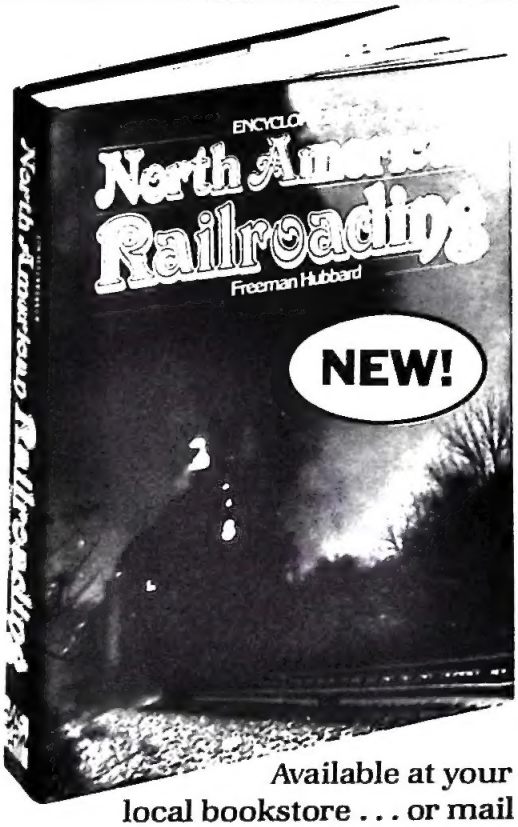
Now there is.

Railroad Collectibles,
An Illustrated Value Guide
Stanley L. Baker
200 pages, 5½x8", softcover, $8.95
Collector Books, 1981

In recent years, the hobby of collecting railroadiana has become increasingly popular in this country and abroad. For those bitten by the acquisitive urge, a price guide such as this can be an invaluable tool, both to beginners trying to decide what collecting interest to specialize in (and what the budget can afford), and to more experienced collectors who may want to assess the value of their collections. (It can also be useful in helping collectors avoid purchasing items from certain overpriced mail-order dealers.)

Written by Stanley Baker, author of our "Collector's Corner" column, this book contains representative prices of 45 different collecting categories encompassing everything from advertising souvenirs to smoking accessories, timetables, toy trains, and wood tokens (plus sub-sections which include more exotic items such as head rests, pillowcases, and stoneware jugs). Prices vary enormously, too. The most expensive item we found was an 1863 Currier & Ives lithograph priced at $5,500. But take heart. The least expensive was only 25¢ (for a Union Pacific toothpick).

The text is set in an easy-to-read typeface and numerous photos illustrate the various items (including 17 in color). Also included is a brief description introducing each collecting interest and a handy 7 page list of initials and the (chiefly U.S.) railroads they represent.



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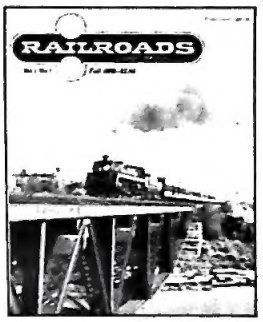

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